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CANADIAN INDUSTRY, COMMERCE AND FINANCE

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CANADIAN INDUSTRY, COMMERCE AND FINANCE

BY

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Preface

Many people are apt to regard the ways of commerce and finance as something that can be understood only by specialists and, hence, delay in acquiring a knowledge of them. This is a great mistake. Nothing is more simple or more easy of comprehension. Furthermore, the value of such a knowledge well repays for the time spent in acquiring it. It often makes or saves money for the business man and enables the employee to be of greater service in his work. It makes commercial and financial periodicals more readable and therefore of greater value.

In this age of commerce, everyone should have some knowledge of modern business methods, particularly in times such as the present, when so many firms are beginning to do an export business for the first time. This volume has been written in the hope that it will supply a ready reference for such information. Particular care has been taken in its preparation.

The author is indebted for much valuable assistance, to the Hon. W. S. Fielding, Ex-Finance Minister of Canada; Sir Frederick Williams Taylor, LL.D., General Manager of the Bank of Montreal; the late Mr. R. Grigg, Commissioner of Commerce for the Dominion of Canada; H. S. Ross, K.C.; E. N. Todd, Divisional Freight Agent of the Canadian Pacific Railway; and J. L. McCulloch, Vice-President of Dale & Co., Marine and Fine Insurance Brokers.

The statistics used in connection with production have been invariably taken from the last census returns of 1911; and where available, those for the calendar year 1913 (the year before the war) are given. Likewise the trade returns quoted are for the fiscal year ending with the 31st of March, 1914. Those of later dates have been avoided, since they cannot be accepted as indicies of normal conditions.

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CANADIAN INDUSTRY, COMMERCE AND FINANCE

INTRODUCTION

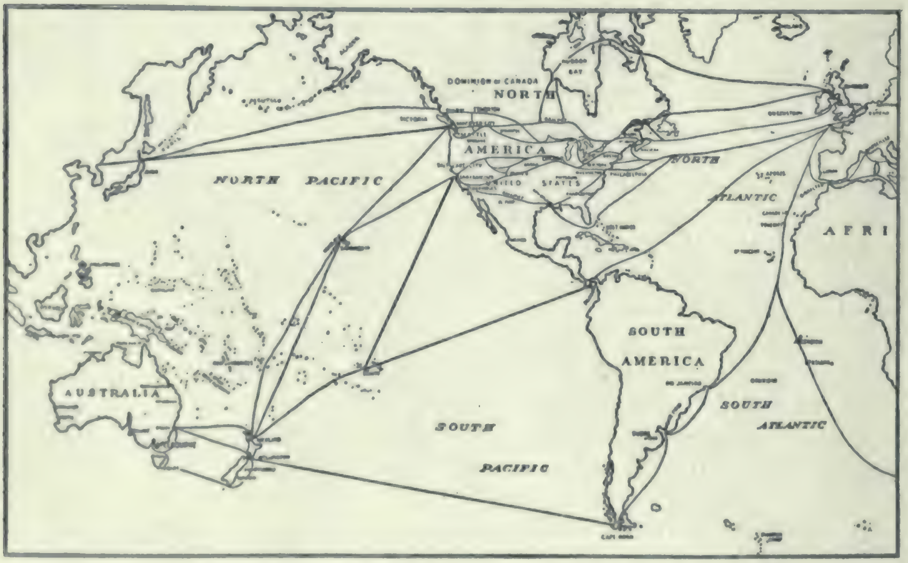
The average person is generally so impressed with the importance of his own work that he is apt to overlook the relation which it bears to what is being done by others; and hence does not realize how unprofitable his work would be if the wheels of all other Industry, Commerce, and Finance stood still.

This volume is intended to give some idea of the relations which the individual effort and group of efforts bear to the whole. Out of the more or less detailed description which is given in this volume of the Practices and Principles that maintain in each of the three great divisions of human activity, it is hoped that some advantage may arise. Individual efforts are often hampered by reason of a wrong conception or at least by the absence of the right one. If, therefore, these pages succeed in giving some such useful information and convey some idea of the opportunities that lie before the average Canadian as a result of the resources of his country and of the facilities which her institutions offer for education, trade and commerce, some good will have been accomplished.

In the matter of natural resources, both as regards richness and extent, few countries have been more lavishly endowed by nature than has Canada. Her lands are fertile and extensive, her mineral deposits numerous and exceedingly rich, her waters abound with all kinds of the most marketable fish, and her forests are comparatively inexhaustible. Among the wheat growing countries that have not yet begun the extensive use of artificial fertilizer, none is capable of the acreage production of Canada, unless it is Southern Siberia. The average production of wheat per acre in Australia, Argentine Republic, India and Southern Russia is from 9 to 11 bushels. In Canada the average production per acre is over 20 bushels for fall wheat, and over 14 for spring wheat.

As regards markets, Canada is more favorably situated than any other of the newer countries. The greatest market of the world for all kinds of products is Europe. Here there are some 200 millions of highly civilized people whose requirements are large and whose domestic resources are limited. According to Lloyd's Calendar, it requires from 36 to 42 days for mail to pass from the principal ports of New Zealand to London; from 26 to 33 days from the principal ports of Australia; from 17 to 22 days from the principal ports of South America; from 17 to 21 days from the ports of South Africa, and from 14 to 16 days from the principal ports of India; but only from 7 to 8 days from the principal ports of Canada. The time required for the passage of freight cargoes is longer than for mail, but the relative time required for a cargo of freight to pass between London and the principal ports of any of the countries just mentioned is indicated by the above figures. These figures also indicate the relative time required for communication and of the cost of cable dispatches, a consideration of great and growing importance to trade and commerce.

The world's market second in importance is that of the United States. As regards this market, none of the newer countries is so favorably situated as is Canada. Japan and China offer the market of third importance; and with regard to this also, Canada is as favorably situated as any of the countries, and much more so than most of them. To sum up, Canada lies midway between two of the world's greatest markets and is separated from the third only by an imaginary boundary line.



CANADA'S ADVANTAGEOUS LOCATION.

What this proximity to the great markets of the world means to this country, only those can adequately appreciate who know the advantage of being able to take orders more readily and deliver the goods in less time than competitors. The difference in cost of communication and transportation is a big advantage to the Canadian producer and exporter, as the following figures, taken from the Report of the Royal Commission of South Australia on the Question of the Marketing of Wheat, indicate:—

From countries mentioned to London.	Freight per bushel.	Insurance per bushel.	Interest on value per bushel while in transit.	Total cost per bushel.
Canada..	3.50 cents	.26 cents	.11 cents	3.87 cents
Argentine Republic ..	8.16 "	.32 "	.49 "	8.97 "
Australia.	15.00 "	1.08 "	.85 "	16.93 "

Another asset of much value lies in the fact that Canada is situated in the same hemisphere as the world's three premier markets. This is a big advantage in shipping perishable goods and live stock. The depreciation in perishable goods and the death rate among live stock, when they have to be transported across the equator, are considerable.

The climate in Canada is decidedly healthy and exhilarating and under its influence people are naturally industrious and ambitious. They are not hampered by the pests which infect warmer climates nor by the tornadoes and earthquakes that periodically visit so many other countries.

When to the foregoing opportunities and advantages, which the natural resources and situation of the country offer, are added the exceptional facilities that have already been created in this country for education, transportation and communication, the Canadian has every reason to feel satisfied with his lot.

Up to the age of 14 every child has abundant opportunity for obtaining a free education in the public schools of the several provinces. But up to this age the average child is incapable of doing more than learning or obtaining the keys to knowledge. The power of making use of these keys begins to develop in the average boy or girl only about the time he or she is leaving the public school. The keys to anything are of little use if we do not know how to use them. Our high schools, our agricultural colleges and technical classes have been established for this purpose and greater use should be made of them.

After leaving the public schools, and more particularly after entering upon a chosen line of work, the technical and trade journals of their particular line should be regularly read. They are the cheapest and best means of keeping up with the times. Another source of information and direction which is cheaper still is the various Reports and other literature issued periodically by the different Departments of the Dominion and Provincial Governments. An excellent library of current literature can be easily, and with little outlay, built up from these two sources. It should never be forgotten that reading and study are the great sources of all knowledge. If the world was deprived of the records of all past experiences which books and periodicals contain, we would be poor indeed.

The pages which follow contain a summary of the more important facts relating to Commerce, Finance and Industry. They have been carefully prepared and compiled in the hope that they will prove of value as a ready reference and source of information to the student and to the man of affairs.

Chapter I.

INDUSTRY

Production and Consumption

Every human being is a consumer of at least the food, the clothes and the dwellings necessary to sustain life; and he is the exceptionally rare individual whose requirements are satisfied by these primary necessities. From a very early age and from before the dawn of civilization, the wants of the human being have continued to increase until at the present time the things which the average person consumes in the course of his living, his clothing, his pleasure, his worship and his work are more numerous than can be easily catalogued.

In order to provide these requirements, it is necessary either to produce them himself or to produce something which may be exchanged or sold for them. Hence most adults at least are producers; and the activity necessary to the operations is called industry. In the ordinary application of the word, however, certain activities are excepted, such as those of the doctor and other professional persons, servants, entertainers, etc. These activities are generally referred to as services. In its ordinary acceptation, therefore, the word "Industry," particularly when it is used in an economic sense, refers to the activities that result in the production of something of intrinsic value, such as the Agricultural Industry, the Fishing Industry, the Mining Industry, the Textile Industry, etc.

In an address delivered at the annual meeting of the Canadian Manufacturers' Association, in 1914, Sir George E. Foster, Minister of Trade and Commerce, made a novel and thoughtful analysis of industry when he said that producers might be divided into three great classes, as follows— First— **Trappers** and **Hunters,** that is those who discover and procure the things which nature has provided. Under this class he placed the fur-trapper and hunter, the miner, the fisherman and the lumberman. The second-class he labelled **Growers,** that is, those who by planting, tending and cultivating, augment and replenish the available supply of commodities. The third-class he called **Manufacturers,** that is, those who treated raw, semi-raw and discarded materials in a manner that altered their nature and application.

In addition to offering a very satisfactory and simple classification of industry, such an analysis is interesting from a historical point of view. In the beginning, man was little else than a hunter and trapper. As civilization advanced, he began to cultivate grain and to tend his flocks. At a still later stage, he began to manufacture. This transition and development are still taking place, producing on the one hand new industries, such as fur-farming and forestry, and on the other a finer and more highly manufactured article.

Canada is still such a new and undeveloped country, with the hall-mark of pioneerism still so evident in the habits of her people, that it is difficult to divide their occupations into distinct industries. The farmer, in many cases, is a lumberman or a fisherman or a miner or a builder at certain times of the year when he is not farming. A similar variety of occupation is also followed by cheese makers and others who can work at their chosen business only during the summer months and who must find something else to do during the winter. Even in many of the manufacturing industries, which in older countries are manned by workers possessing the skill and training that concentration of effort and constant employment in one class of work brings, there is a migration from one kind of employment to another that is not conducive to the most satisfactory production either as regards quantity or quality. But in this matter rapid improvement in all classes of Canadian industry is being made. The farmer is beginning to realize that the time he formerly spent in the lumber camp can be more profitably employed on his farm, tending to his stock, picking over and preparing the seed to be used for his next crop, repairing and improving the buildings, and in doing the hundred and one things, which, if not done during the winter months, materially diminish the returns from his summer's work. Those engaged in other lines of work are also beginning to realize that unless they prepare themselves for some particular occupation, either by training or by the experience which constant employment in one class of work brings, they seldom, if ever, amount to more than unskilled labourers. To this end much good work has been done and is continuing to be done by the many and excellent Agricultural Colleges, Mining Schools and other Technical Institutions that Canada already possesses.

FUR HUNTING AND TRAPPING.

The Hunter and Trapper, who live in the wilds and on the outskirts of settlement and civilization and whose only occupation is the killing of wild animals and birds, the catching of fish and the gathering of wild herbs, are fast disappearing. The opportunities for such occupations are becoming limited, by the extension of settlement and by the disposition on the part of governments to conserve wild game and fish for sportsmen, who are willing to pay substantial licenses for the privilege of spending a few holidays each year in protected reserves that are not yet required for settlement. Many Canadian provinces derive a considerable portion of their revenue from this source, as well as from the fees exacted from individuals who hunt or fish for sport on lakes, rivers, and land areas that are not licensed by sportsmen or taken up by settlers. The Dominion, as well as many of the Provincial Governments have also reserved large areas for national parks where wild animals may roam, fish may remain and trees, shrubs, and plants may exist without the interference of the hunter, trapper or sportsman. The main purpose these parks are now serving is that they are giving nature an opportunity to multiply and perpetuate many species which otherwise would become depleted or, in fact, extinct. All this has tended to limit the area in which the hunter and trapper may follow his avocation and to drive him back so far into the wilds that he finds it difficult to get his supplies, sell the products of his labor or live with any degree of comfort. It is only the primitive mind that can endure such a solitary existence for any length of time. Hence it is only a few exotics of modern civilization and the remnant of aborigines such as the North American Indian and the Eskimo, who devote their time to hunting and trapping.

These, however, are no inconsiderable number in Canada, and the products of their labors, particularly fur-skins, form an important item of Canada's production. The value of fur-skins exported from Canada during the fiscal year ending March 31st, 1914, was $5,667,749. This, of course, does not represent the total production. The consumption in the Dominion of this class of article is considerable. On the other hand, a considerable portion of the above amount represents the products of fur-farming as well as that of the sportsman and of the man, particularly the farmer, who kills an occasional fur-bearing animal.

The occasional animal killed in settled parts of the country is generally sold to the local hide merchant, whose principal business is the buying of hides of domestic animals for the tanneries. In some centres, where the production of furs is considerable, there are local fur-jobbers. Either of these buyers generally re-sell his fur-skins to furriers and large fur trading companies such as the Hudson's Bay Company. These companies also maintain trading posts throughout the unsettled parts of Canada, where they exchange food, clothing, hunting equipment and ornaments for the furs caught by the Indians, Eskimos and other trappers and hunters. Money is seldom paid to these people.

MINING.

A mineral is a substance formed by nature alone and no process known to man can augment the quantity of any mineral in the earth's crust. When a quantity of any mineral has been taken from the ground, the mine from which it is taken is poorer by that amount, and when a deposit has been depleted of all its extractable mineral, the mining industry in that district ceases and the mining camp disappears. In the light of this consideration the miner belongs to the same class as the hunter and trapper. But, while hunting and trapping continues, as it has always been, an industry demanding but a primitive knowledge, the discovery of minerals and their extraction requires a well-trained mind and a considerable knowledge of geology, mineralogy and chemistry.

The science of the **Geologist**, or Geology, treats of the history of the earth's crust and of the changes it has undergone, the different kinds of rocks and how they have been formed as well as of the minerals that naturally go together and the kind of geological formation in which each group is most likely to occur. The main business of the geologist, therefore, is to map out the country into geological areas. In Canada this work is undertaken by the Dominion Government as well as by the Governments of a few of the Provinces. The Geological Department at Ottawa has accomplished much and is continuing to do very important work along these lines. The geological staffs of the Provinces, particularly that of Ontario, are also rendering valuable service.

The science of the **Mineralogist**, or Mineralogy, has to do with minerals, their characteristics, how they occur and how best they can be extracted from their ores. The work of the Mineralogist or Mining Engineer is concerned more with specific deposits of economic minerals and requires a knowledge of what has been learned by patient observation and study both in the field and the laboratory. This knowledge serves to determine the value of a deposit, to guide the work of developing a mine, the taking out of the ore and the extracting of the mineral from the ore after it has been taken from the mine. The Mining Engineer generally acts in a consulting or advisory capacity with the owner or superintendent. If the services of competent Mining Engineers were sought more than has been the custom in the past, there would be less money lost by mining investors.**

Until very recently the problem of treating ores and extracting minerals from them had to be solved entirely at the expense of the individual miner and mining company. Of late the Dominion Government has interested itself in this work and a start has been made in the direction of establishing an experimental and research laboratory under the supervision of competent specialists. This experimental and research work is similar to what is being done for the producers of forest products by the Forest Products Laboratory at Montreal, or for the Agriculturalists in the Agricultural Colleges and experimental stations.

The **Chemist** is also necessary to any mining undertaking, and most companies of any considerable size have one or more in their employ. There are also a number of reliable chemists or assayers who do custom work.*** The duty of the chemist is to ascertain the amount of mineral in a given quantity of ore as it comes from the mine or from a new discovery, the quantity of mineral that has been left in the ore after treatment and the impurities in the mineral extracted.

Another very necessary personage in mining is the **Prospector** who goes into known geological areas to look for new deposits of minerals. He is the forerunner of the industry and every effort should be made in a country such as Canada to develop and encourage this class of individual. Much might be accomplished along this line by giving the youth of the country some knowledge of minerals, how they occur and their uses and value. If nothing else, elementary books and other suitable literature on mines and minerals might be placed in public libraries and in the libraries of elementary and secondary schools. Most prospecting for minerals is a very simple business but it requires, at least, a knowledge of the minerals and how they occur as well as a special endowment of patience and a capacity to suffer hardships. Some kinds of prospecting, it is true, requires investment, particularly that done with the diamond drill and other equipment. This work, however, is used more to test the extent of a deposit after it has been discovered or located.

It is only the exceptional discovery that develops into a mine and still the less frequent one that amounts to a mining camp. It would require a large volume* to chronicle the known mineral deposits of Canada and yet only a fringe of this great country has been prospected; and even this fringe has been looked over only in a very haphazard and indifferent manner. A list of the producing mines occupies much less space and may be had in the "Canadian Mining Manual," a small volume published annually by the "Canadian Mining Journal," 263, Adelaide Street, W., Toronto.

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* A volume giving the location of all known mineral deposits in Canada has recently been published by the Department of Mines, Ottawa.

** See Chapter VI. for list of Mining Engineers.

*** See Chapter VI. for list of Custom Assayers and Chemists.

The mining industry of Canada gives employment to about 70,000 people.

There is no country which so completely controls the markets of the world for so many minerals as does Canada in the cases of nickel, asbestos and cobalt. Her mines are also an important factor in the world's supply of silver. The total value of the mineral output of Canada in each of the ten years down to 1913, was as follows:—

1904	$60,082,771
1905	69,078,999
1906	79,286,697
1907	86,865,202
1908	85,557,101
1909	91,831,441
1910	106,823,623
1911	103,422,439
1912	135,048,296
1913	144,031,047

The production by items for the year 1913 was as follows:—

Product.		Quantity.	Value.
Metallic.			$
Copper	Lbs.	76,975,832	11,753,440
Gold	Ozs.	784,525	16,216,131
Pig iron from Canadian ore	Tons.	73,508	996,429
Iron ore sold for export	"	216,614	430,561
Lead, value at 4.659 cents per pound	Lbs.	37,662,703	1,754,705
Nickel, value at 30 cents per pound	"	49,676,772	14,903,032
Silver, value at 59.791 cents per oz.	Ozs.	31,750,618	18,984,012
Cobalt and nickel oxides		....	689,511
Zinc ore	Tons.	7,535	400,000
Total		....	$66,127,821
Non-Metallic.			
Actinolite	Tons.	66	720
Arsenic, white	"	1,692	101,463
Asbestos	"	136,951	3,830,909
Asbestic	"	24,135	19,106
Coal	"	15,115,089	36,250,311
Corundum	"	1,177	137,036
Feldspar	"	15,935	56,841
Graphite	"	2,162	90,282
Grindstones	"	4,284	43,900
Gypsum	"	639,698	1,477,589
Magnesite	"	770	4,620
Mica	"	....	170,112

Mineral pigments—			
Barytes	Tons.	641	$ 6,410
Ochres	"	5,987	41,774
Mineral water			173,677
Natural gas	M.cu.ft.	20,345,763	3,338,314
Peat	Tons.	2,600	10,100
Petroleum, value at $1.72 per barrel	Brls.	228,080	406,439
Phosphate (returns not complete)	Tons.	25	217
Pyrites	"	228,811	638,185
Quartz	"	78,261	169,842
Salt	"	100,791	491,280
Talc	"	12,250	45,980
Tripolite	"	620	12,138
Total			$47,517,155

Structural Materials and Clay Products.

Cement, Portland	Brls.	8,658,922	11,227,284
Clay products—			
Brick, common, pressed, paving			7,709,224
Sewerpipe			920,973
Fireclay, drain tile, pottery, &c.			1,037,870
Kaolin	Tons.	500	5,000
Lime	Bush.	7,671,381	1,605,812
Sand and Gravel			1,712,256
Sand-lime brick			962,004
Slate	Sq.	1,432	6,444
Stone—			
Granite			1,644,183
Limestone			3,087,991
Marble			250,373
Sandstone			216,657
Total structural materials and clay products			30,386,071
All other non-metallic			47,517,155
Total value, metallic			66,127,821
Grand total			$144,031,047

The production by provinces for 1913 was as follows:—

Ontario	$58,697,602
British Columbia	28,529,081
Nova Scotia	19,305,545
Alberta	13,844,622
Quebec	13,303,649
Yukon	6,198,224
Manitoba	2,211,159
New Brunswick	1,049,932
Saskatchewan	899,233

Smelter Products.—The total quantity of ores, concentrates, etc., treated in Canadian smelters in 1913 was 3,027,085 tons, made up as follows—

Nickel-Copper-Ores	823,403 tons
Cobalt-Silver-Nickel-Ores	5,818 tons
Lead and other ores treated in lead furnaces	78,110 tons
Copper-Gold-Silver-Ores	2,119,745 tons

In addition to the reduction at smelters, which treated the above-mentioned ores, there were, in 1913, eleven blast furnaces which produced 1,128,967 tons of pig iron. Of this amount 1,055,459 tons were produced from imported iron ores mainly from Bell Island, Newfoundland, for reduction in the smelters of Northern Nova Scotia and from the Mesabi ranges of Minnesota, U.S.A., for reduction in the smelters at Sault Ste. Marie, Midland and Hamilton, Ont.

Coal.—Coal is the most important item of Canada's mine products. It is produced in the Eastern and Western Provinces as follows:—

Eastern Provinces:—

Nova Scotia	7,972,727 tons.
New Brunswick	70,311 tons.

Western Provinces:—

Alberta	4,144,377 tons
British Columbia	2,714,499 tons
Saskatchewan	209,175 tons
Yukon Territory	4,050 tons

The coal of Nova Scotia and New Brunswick is bituminous. In Nova Scotia the coal fields embrace about 1,125 square miles and are situated in Cape Breton, Pictou, Inverness, Victoria and Cumberland districts. In New Brunswick the coal fields are situated in the Counties of Kent and Kings.

In British Columbia the coal beds occur in Vancouver Island and the District of the Crow's Nest Pass. There are also undeveloped deposits in the Queen Charlotte Islands, along the Skeena River, and in the North Caribou District.

The Province of Alberta is especially rich in coal fields. Those at present being worked are mainly situated in the south, near the boundary of British Columbia.

Coke.—During 1913, 1,598,912 tons of Canadian coal and 549,001 tons of imported coal were treated in Canadian coke ovens, producing 1,517,133 tons of coke and by-products as follows:—

10,608 tons of ammonia sulphate; 8,371,600 gallons of tar and 3,353,731 thousand feet of gas.

Silver.—The mineral of second importance in Canada's mine products for 1913 was silver. Of this, Ontario produced 28,452,737 ounces, practically all of which came from the District of Cobalt. With the exception of a few ounces that were recovered from the Pyritic ores of Quebec, the balance, namely, 3,208,122 ounces, was recovered from the smelter products of British Columbia.

Gold.—In point of value this mineral takes third place in Canada's mineral production. The placer mining of the Yukon produced $5,835,554 worth of gold dust and small nuggets, and the placers of British Columbia $540,000 worth. The smelter recoveries and bullion from ores milled in British Columbia amounted to $5,596,900. Owing to the discovery of the gold deposits at Porcupine, the Province of Ontario began in 1913 to take a leading place as a producer of gold. Its output in that year amounted to $4,558,518. The remainder of Canada's production in that year came from the Province of Nova Scotia, with a small amount from the Province of Quebec.

Nickel.—Nickel in point of value takes fourth place. Practically all of Canada's production of this metal and fully 80 per cent. of the world's consumption comes from the District of Sudbury, Ont. After coming from the mine, the ore is roasted in open-air heaps in order to drive off some of the sulphur. It is then smelted in Bessemer furnaces to a matte containing 80 per cent. of nickel and copper. In this condition it is shipped to Great Britain and United States for further refining. A portion of the matte produced is used for the direct production of monel metal, an alloy of nickel and copper without the intermediate refining of either metal.

There is a small recovery of nickel in the form of nickel oxide from the ores from the District of Cobalt.

Copper.—Copper is the Canadian metal of fifth importance in point of value. Of this, the Province of Ontario produced, largely from the Sudbury Districts, 25,884,836 pounds; the production of British Columbia was 47,791,579 pounds; the production from the Province of Quebec, which came largely from the Districts of Eustis and Weedon was 3,455,887 pounds.

Cement occupies the sixth place among the mineral products of Canada. The total output, including slag cement, in 1913 was 9,880,903 bbls. The total capacity of completed cement mills at the end of 1913 was about 50,000 barrels per day. Canadian mills supplied over 97 per cent. of the domestic consumption. The mills are situated mostly in the Provinces of Ontario and Quebec.

Brick, for building and paving purposes, was the commodity which occupied seventh place in Canada's mineral production.

Asbestos, which holds the eighth place among mineral products of Canada, is mined entirely in a limited area in Thetford, Black Lake, Broughten and Danville Districts of the Province of Quebec. Considering the number of persons to whom this industry gives employment, namely, about 3,000, it is one of the most important industries in Canada. Only a small fraction of the output is consumed by Canadian industries. The exports in 1913 amounted to 103,812 tons.

FISHERIES.

In point of numbers engaged, the Commercial Fisheries is the industry of second importance in Canada—that of agriculture coming first. This industry in 1913 gave employment to about 100,000 people, or to be exact, 98,669, according to the report of the Department of Fisheries at Ottawa. Of this number 71,776, were employed on 1,992 vessels, tugs and carrying smacks, and in 37,686 boats; while 26,893 persons were engaged on shore in the canneries, freezers, fish houses, etc. Of the total number 86,486 were engaged in the sea fisheries, and 12,183 in the fisheries of the inland lakes and rivers. The number of gasoline boats used in the industry was 8,700.

The deep sea fishing is carried on in vessels of from 40 to 100 tons, each of which carries 12 to 20 men. The fishing grounds or banks, upon which these deep-sea fishermen work, are situated from twenty to ninety miles off the Atlantic and Pacific Coasts. After supplying their vessels with bait, provisions and other necessary equipment, they sail or steam out to the fishing grounds where they anchor, and the crews go out in small boats from which they fish with trawling lines fitted with baited hooks. The bait used is chiefly squid, herring and caplin. The fish caught are principally cod, haddock, hake, pollack and halibut.

Another class, known as inshore or coastal fishermen, operate from small boats with crews of from 2 to 3 men. Inshore fishing is also carried on from small vessels with crews of from 4 to 7 men. From these boats and small vessels they catch the fish with the aid of gill-nets, hooks and lines, both hand line and trawl. Trap nets, haul seines and weirs are also used by inshore fishermen. The fish caught in this way are cod, hake, haddock, pollack, halibut, herring, mackerel, alewife, shad, smelt, flounder and sardines. A very important item of the Atlantic inshore fisheries is the trapping of the lobster. The world's finest supply of this fish lies off the eastern shores of the Maritime Provinces. The gathering of oysters, particularly off the southern and eastern shores of the Gulf of St. Lawrence, is also an item of no mean importance in Canada's fisheries. Another important fish caught by the Atlantic inshore fishermen is the salmon. The Atlantic salmon is one of the finest fresh fish that comes on the Canadian markets.

The most important salmon fisheries of this country, however, occurs on the Pacific Coast, where large quantities of three or four different species are to be had at almost any time of the year but particularly at certain seasons when they come up into the rivers and bays in countless numbers. At these seasons they are netted in great quantities and prepared for use in canneries located at advantageous points along the British Columbia coast. The second most important fish caught off the Pacific coast is halibut. This fish is frozen and shipped in refrigerator cars to the markets of Canada, United States and Great Britain. The herring is also exceedingly plentiful on the Pacific Coast; but, apart from a few that are caught by the Japanese and what is used as bait by the halibut fishermen, little has been done in the way of catching and marketing this most valuable and least expensive food-fish.

In the inland lake and river fisheries the means of capture are generally gill-nets, pound-nets, seines and hook-and-line. The principal commercial fish caught are whitefish, trout, pickerel, pike, sturgeon, and fresh water herring.

The total marketed value of all kinds of fish taken by Canadian fishermen from the sea and inland lakes and rivers during the fiscal year ending March 31st, 1914, amounted to $33,207,716. Of this value the sea fisheries contributed $29,472,811, and the fisheries of the inland water $3,734,937. The production, according to provinces, was as follows:—

Provinces.	Value produced.
British Columbia	$13,891,398
Nova Scotia	8,297,626
New Brunswick	4,308,707
Ontario	2,674,685
Quebec	1,850,427
Prince Edward Island	1,280,447
Manitoba	606,272
Saskatchewan	148,602
Alberta	81,319
Yukon	68,265
Totals	$33,207,748

The following table shows the relative values of the chief commercial fisheries returning $100,000 and upwards, in their order of rank for the year 1913:—

Kinds of Fish.	Value.
Salmon	$10,833,713
Lobsters	4,710,062
Cod	3,387,109
Herring	3,173,129
Halibut	2,036,400
Mackerel	1,280,319
Whitefish	929,692
Haddock	841,511
Smelts	810,392
Trout	682,619
Sardines	676,668
Hake and cusk	490,979
Pickerel	449,539
Pike	372,868
Clams and quahaugs	368,325
Pollack	187,723
Oysters	173,763

The value of the exports of fish and fish products from Canada during the fiscal year ending March 31st, 1914, was $20,130,605.

The principal ports out of which Canadian fishing fleets operate are as follows:—

Nova Scotia.—Lunenburg, Halifax, Canso, Digby, Yarmouth, Pubnico, Lockport, Shelburne, Liverpool, Clark's Harbor, Port La Tour, Arichat, Louisburg and Port Hawkesbury.

Prince Edward Island.—Charlottetown, Summerside, Georgetown, Souris, Tignish, and Malpeque.

New Brunswick.—St. John, Black's Harbour, Loggieville, Chatham, Point du Chene, and Bathurst.

Quebec.—Gaspe, Perce, Paspebiac, and Grand Bay.

Ontario.—Port Burwell, Port Maitland, Port Stanley, Port Arthur, Port Dover, Port Rowan, Port Robinson, Port Bruce, Killarney.

Manitoba.—Selkirk.

British Columbia.—Vancouver, Prince Rupert, Stevenston, New Westminster, and Haysport.

The earliest reports indicate that the fisheries of the Northern Atlantic and Northern Pacific were the first national resources of the North American Continent to be tapped for supplies required by Europe. For over 400 years these waters have continued to reward the efforts, not only of those who fish out of Canadian ports, but also the large fleets that come from the ports of United States, Great Britain, Spain, Portugal, France, Holland, Denmark, Norway, Sweden and Japan. The cold waters off the West Coast of the Northern Atlantic produce the finest qualities of fish in the world. All fishermen, other than those from the Canadian ports, engage in the deep-sea fisheries, as the Canadian laws do not permit them to fish within three miles of the shore, nor within certain large bays and inlets such as the Bay of Fundy. This draft by foreign fishermen is nevertheless a heavy drain on the resources of these waters, for no artificial boundaries can confine or limit the roaming habits of sea fishes. Little, if any, signs of depletion are yet noticeable in Canada's deep-sea fisheries. The only classes of fish that show any diminution are those whose habitations lie closer to shore, such as lobsters, oysters and fish that come up into the rivers to spawn. The efforts of the Dominion Government in the direction of protecting fish during the spawning season and of augmenting the numbers by fish hatcheries, as well as by the replanting and cultivation of the lobster and oyster beds, have done much to keep up the supply for the inshore fishermen. The protection and augmentation given by the Government has also done much for Canada's inland fisheries. Of late the Provinces of Ontario and Quebec have taken over from the Dominion Government the fish hatcheries within their respective provinces. No doubt this policy will be followed by the other provinces and with the joint efforts of the Provincial and Federal forces, the supply of inshore and inland fish should be kept up.

The present condition and extent of the Canadian fisheries is well set forth in the following, taken from the Government report for 1914:—

"To say that Canada possesses the most extensive fisheries in the world is no exaggeration; moreover, it is safe to add that the waters in and around Canada contain the principal commercial food fishes in greater abundance than the waters of any other part of the world. The extraordinary fertility of what may be called our own waters is abundantly proved by the fact that, apart from salmon, all the lobsters, herring, mackerel and sardines, nearly all the haddock, and many of the cod, hake, and pollack landed in Canada are taken from within our territorial waters.

"The coast line of the Atlantic provinces, from the Bay of Fundy to the Straits of Belle Isle, without taking into account the lesser bays and indentations, measures over 5,000 miles; and along this great stretch are to be found innumerable natural harbours and coves, in many of which valuable fish are taken in considerable quantities with little effort.

"On the Pacific Coast, the province of British Columbia, owing to its immense number of islands, bays and fiords, which form safe and accessible harbours, has a sea-washed shore of 7,000 miles. Along this shore and within the limits of the territorial waters there are fish and mammals in greater abundance, probably than anywhere else in the whole world.

"In addition to this immense salt-water fishing area, we have in our numerous lakes no less than 220,000 square miles of fresh water, abundantly stocked with many species of excellent food fishes. In this connection, it may be pointed out that the area of the distinctly Canadian waters of what are known as the Great Lakes—Superior, Huron, Erie and Ontario—forms only one-fifth part of the total area of the larger fresh-water lakes of Canada."

There seems to be no question but that Canada has an exceptional source of wealth in her fisheries. What she lacks are markets. Fish is not as important an item in the diet of the average Canadian as it is with the people of most other countries. The people of Great Britain consume something like 750,000 tons of fish per year and 1,800,000 tons of meats. In that country fish occupies an important place in the menu of every person, rich and poor. What a fine thing it would be for the people of this country and for her fishing industry if fish were consumed to anything like the same proportion. Fish is one of the finest foods for either the physique or the mentality. It is also the least expensive. Moreover the fish eating habit can be more easily cultivated on Canadian fish than on any other, since it is the finest in the world. All this should inspire the industry with an ambition to make these products better known to the Canadian consumer.

Ways and means should also be found for extending the sale of Canadian fish in foreign markets. Much valuable work has already been done along this line by the Dominion Government and now that the industry, from the producer to the retailer, is organized for propagandist and educational purposes into an organization known as the Canadian Fisheries Association, the progress in the future should be more rapid.

LUMBERING.

Next to fishing, the industries producing forest products were the first to be established in Canada. These industries were created, on the one hand by the necessity for clearing the land, as practically all the agricultural areas east of Winnipeg and west of the Rockies were originally wooded; and on the other hand by the existence of some of the finest timber that was to be found anywhere on the globe. In these early days only a small fraction of the slaughtering of the forest could be termed lumbering, as only a small part of the best oaks and pines were cut for commercial purposes. Apart from the few sticks that were exported and what was required for the huts of the settler, his firewood, his fence rails, etc., all was burnt in an effort to clear the land for cultivation. So general was this practice throughout Eastern Canada that for many years the gathering and exporting of wood ashes was a considerable business. Until the potash deposits of Germany were discovered, Canadian ashes was an important source of the supply of potash. The potash kettles of those days are still to be seen on many old homesteads.

Frequently fires set for the purpose of clearing an arable piece of land would get out of control and sweep over large tracts of country, destroying all classes of timber. When such fires started at the beginning of a dry period, they caused incalculable damage, as there was nothing to check them except an intervening lake or a heavy rain. There was some compensation where such fires assisted the settler in clearing land that was fit for agriculture; but there was an unmitigated and irreparable loss where large areas, unfit for agriculture, were depleted of their forest growth as well as of much of the humus in the soil, which is so necessary to reforestization. In the light of what has taken place in many of these unproductive areas, the damage to the country's national economy was not confined to the destruction of the forest and the impoverishing of the soil. It encouraged many settlements in territories incapable of rewarding the labour expended in an effort to produce crops. Many of these settlements, unfortunately, have persisted in making these unprofitable and in fact hopeless efforts, even after large areas of suitable agricultural land were opened up by the extension of railways. It is true that large numbers have emigrated, particularly to Western Canada, from these poor settlements. But many still continue on these poor homesteads, eking out a miserable and labourious existence. The type is too frequently met with in the north and north-eastern parts of Ontario, the northern parts of New Brunswick and several districts in Nova Scotia. To all students of national economy, it is evident that an important duty rests with the Provincial and Dominion Governments to remove these people from areas so unfit for agriculture to more suitable agricultural districts and to inaugurate some scheme for the reforestization of these poor lands.

The destruction by forest fires is very much less at the present time than it used to be. Occasionally a forest fire, started by the carelessness of a prospector, hunter or other camper or by a locomotive, gets beyond control and does considerable damage. But the vigilance of the government officials has reduced to a minimum the possibility of this happening. The forest industries also give much assistance. They are well organized into associations known as the Canadian Forestry Association and the Canadian Pulp and Paper Association. Both these organizations exist solely for educational and propagandist purposes.

In the early days, little or no timber, cut for export, was sawn. It was generally hewn square with the broadaxe, hauled to the nearest water-course, made into rafts and floated down to Quebec or St. John, N.B., from where it was taken by boat to Europe. The timber cut along the upper lakes was taken by boat to Garden Island and Kingston at the lower end of Lake Ontario, unloaded and made into rafts and floated down the St. Lawrence to Quebec. These three points, namely, Quebec, St. John, N.B., and Garden Island, Ont., did a flourishing business in these days, not only in the trans-shipping of timber but also in ship-building. The business of exporting square hewn timber has almost completely passed away, as has also the business of building large wooden ships. A few pieces of birch, hewn square with the broadaxe, still come into the market and an occasional raft of other squared timber is met with on our lakes and rivers.

Another business that has dwindled to small proportions and which at one time was an important item of Canada's forest products is that produced by the demand which used to exist for the bark of the hemlock (tan bark) for tanning purposes. This industry reached its maximum in the year 1880, when the production exceeded 112,000 cords.

In the early days the business of making charcoal for blast furnaces was also considerable. This was done by burning hardwood logs in pits with the admition of as little air as possible. All the stoves, potash kettles, pots, pans and gridles of these early days were made from the iron extracted from native ores by wood charcoal. With the introduction of coke, which is made from coal, this primitive industry of making charcoal has largely passed away. The part of it which still remains has been converted into distillation plants for the purpose of recovering wood alcohol. The charcoal thus produced is still used to some extent in smelters, but the larger part of it is sold by the local grocer for kindling fires.

In the early days, when mortar, made with lime and sand, was in general use for the stopping of chinks in log buildings, for the building of stone houses, etc., wood was used for the burning of limestone from which the lime was made. Wood is still used for the production of what little lime is required. It is also used in most brick yards for the burning of bricks.

By far the heaviest demand upon the forest was for firewood. In the early days this was burnt in open hearths and later in stoves and heating furnaces. Every town of any size had its wood market, where the urban dwellers bought their supplies of cordwood that had been cut on bush farms in the neighborhood. But this business has also largely disappeared, partially due to the depletion of the local sources of supply and partially to the tendency on the part of city people and even country people to use coal. At no time did firewood bulk very large in the country's exports of forest products. A demand of considerable importance was for fence rails. The rail fence (commonly known as the snake fence) is still to be seen in many parts of Eastern Canada, but it is invariably made of rails that were cut several years ago. Most of the fences built recently are of wire, which draw upon the forest only for the necessary posts. This draft in the aggregate is, however, considerable. The advent of railroads, both steam and electric, created a new demand, namely, for cross ties on which the rails are laid. The development of mines, particularly coal mines, also require timber to hold up the overhanging walls left after the coal seams have been torn down and taken away. There is also considerable timber required for telegraph and telephone poles.

For building purposes, wood was first used in the form of logs, either round or squared, the chinks between them being filled with plaster. The small quantities of lumber required for flooring, sheeting, etc., were sawn out of the logs with a hand saw or hewn out with a "broadaxe," and the "adze." But these very primitive conditions did not continue for long in Canada. The circular saw driven by water-power was invented about the beginning of the last century, and as Canada possessed excellent water power with the necessary forests in close proximity, the industry of making lumber advanced rapidly to the point of supplying the domestic demand, with which it has kept pace ever since—that is, in so far as the Canadian forests supply the kinds of wood required. A considerable export trade in lumber, deals, batons, etc., was soon established. This has had a steady and healthy growth.

The demand for local requirements has been of no mean proportions. As the wealth of the country increased, the log huts were replaced by frame houses, which, in turn, gave way periodically to larger and finer ones. Barns and stables were built, re-built and improved and lumber began to be used in many ways hitherto unthought of by the settler. Considerable timber is annually cut up into shingles for roofs and into laths, upon which the plaster on ceilings and partitions is laid. Much lumber has also been used for bridges, culverts, etc. Of late, cement, stone and brick have, to a considerable extent, taken the place of wood; but the demand for lumber seems to be as great and even greater than ever. The ever-increasing supplies required for manufacturing purposes such as furniture, interior decorations, cooperage and other packing cases, no doubt has materially assisted in keeping up the demand.

A comparatively new but rapidly increasing demand on the forest has been created by the use of pulpwood for the making of pulp, from which is manufactured, not only paper for printing and writing purposes, but also paper for sheeting and roofing and pulp boards for interior decorations, as well as for packing cases, tubs, wash basins and other utensils.

According to the report of the Department of Forestry at Ottawa, the production of the principal forest products during the year 1913 was as follows:—

Lumber	3,816,642,000 feet,	valued at	$65,796,438
Laths	739,678,000	valued at	1,783,283
Shingles	1,485,279,000	valued at	3,064,641
Pulpwood	2,144,064 cords,	valued at	14,313,939
Total value			$89,958,401

These figures are necessarily incomplete, because the Government has to depend upon the mills to make out and send in their own reports. The first three items were compiled from the reports of 2,187 mills. Moreover, these figures do not include products such as posts, poles, ties, cordwood, etc.

According to the last census returns, the number of log and lumber producers, operating in Canada during the year 1910, was 4,358. These gave employment to 93,649 people and had an output valued at $145,401,805. This industry was distributed among the provinces as follows:—

Province.	No. of Establishments.	No. Employed.	Value of output.
Ontario	1,449	28,799	$54,307,071

Quebec	1,468	26,703	$36,679,620
British Columbia	263	16,241	23,580,128
New Brunswick	368	9,566	13,076,441
Nova Scotia	542	6,430	9,476,049
Manitoba	54	1,712	3,541,902
Alberta	78	1,752	2,835,614
Saskatchewan	44	966	1,317,976
Prince Edward Island	112	370	487,049

The exports for the year ending with March 31st, 1911, were as follows:—

Wood Unmanufactured	$45,343,935
Wood Pulp	5,715,532
Other Manufactures of Wood	945,774
Total	$52,005,241

The exports for the year ending with March 31st, 1914, were as follows:—

Woods Unmanufactured	$42,743,275
Wood Pulp	6,364,824
Other Manufactures of Woods	880,387
Total	$49,988,486

Dr. Fernow, Professor of Forestry at Toronto University, estimates the wood land areas of Canada at 1,000 million acres and the actual available areas of merchantable timber at 200 million acres. Mr. R. H. Campbell, Dominion Director of Forestry, has said that "There are probably about 500 million acres of forest lands in the Dominion, one-half of which may be covered with merchantable timber."

INDUSTRY OF GROWERS, OR AGRICULTURE.

This group of industries is the most indispensable to the people's prosperity and happiness and even existence of any class of industrial activities. They are the "sine qua non" (without which there is nothing) of every country and even of most communities. They form the foundation upon which all other industry rests. They are the backbone of all industrial prosperity. Food and clothing are the primary necessaries of every human being and it is on our cuisine, our viands and our raiment that we practice our greatest excess and lavish our worst extravagance. Practically all grains, vegetables, fruits, meats and textile fibres are produced by growers of one class or another.

The most comprehensive term ordinarily applied to this class of industry is "agriculture," which, according to Webster's dictionary, signifies "the art or science of cultivating the ground, including the harvesting of crops and the raising and maintenance of live stock." The word "farmer," which in its original sense meant "The rent of land," has come down to us from times when all land was held as lease-hold from the "Lords of the Manor."

Owing to the difference in climate, soils, etc., as well as to a tendency in the direction of specialization, the business of agriculture is more or less segregated into a number of component parts such as Grain Growing, Dairying, Horticulture (the growing of vegetables), Fruit Growing, Live Stock Raising and the growing of flowers for cutting and for bulbs and seeds. Bee-keeping is also a branch of agriculture.

The products of all these branches come from the land, which, according to the last census, namely, that of 1911, may be divided as follows:—

Province.	Occupied as farm land. Acres.	Estimate of possible farm land. Acres.
Saskatchewan	28,642,985	93,458,000
Ontario	22,171,785	56,450,000
Alberta	17,741,899	97,123,000
Quebec	15,613,267	43,745,000
Manitoba	12,228,233	24,700,000
Nova Scotia	5,260,455	8,092,000
New Brunswick	4,537,999	10,718,000
British Columbia	2,540,011	22,618,000
Prince Edward Island	1,202,354	1,258,190
Total	109,948,988	358,162,190

Of that occupied as farm land, 48,738,823 acres was land which had been brought under cultivation and which has been cropped and is fit for producing crops. The remaining 61,215,165 acres were being used as pasture land or were covered with bush. Of the land that was occupied, 35,261,338 acres were actually under crop at the time the census was taken, namely, June 1st, 1911. At that time the farm holdings in Canada numbered 714,646, divided as follows: (of these 7.291 comprising 574,702 acres were vacant or unoccupied farms in the poor districts of the Eastern Provinces)

Holdings of less than 1 acre	30,141
Holdings of 1 acre and under 5	44,180
Holdings of from 5 to 10 acres	24,666
Holdings of from 10 to 50 acres	89,829
Holdings of from 50 to 100 acres	164,662
Holdings of from 100 to 200 acres	228,237
Holdings of over 200 acres	132,931

Of the holdings of over 200 acres, 90,011 were in the Western grain-growing Provinces of Saskatchewan, Alberta, and Manitoba. The larger number of the small holdings were in the Provinces of Eastern Canada, particularly in the fruit growing districts and in districts where mixed farming is mostly practised.

The census returns do not give the number engaged in the agricultural industry. The total number of people living in homes outside the limits of cities, towns and incorporated villages was 3,925,679; but of course this number includes a great many trappers and hunters, miners, fishermen, lumbermen, artisans, school teachers, agents, professional men, etc. After making allowance for these, as well as we can from the census returns, a fair estimate of the people living on farms in Canada at the time the census was taken would be 1,300,000 men and 1,100,000 women between the ages of 15 and 64. These figures fairly represent the number of Canadian producers of agricultural products. It must be remembered that there is no industry where the women and children can give so much assistance to production as they can and do in the agricultural industries, without the violation of the finer sensibilities which any person may have concerning the employment of women and chldren.

Orchards and Gardens, according to the census returns of 1911, occupied the following areas:—

	Acres.
Orchards	403,596
Garden Vegetables	206,011
Small Fruits	17,495
Vineyards	9,836
Total	636,938

These figures do not include the gardens lying within the boundaries of incorporated cities, towns and villages, which, by the way, are not so large as they might be. There does not seem to be as strong a disposition on the part of urban dwellers in Canada to grow fruits and vegetables for themselves and their families as is evidently the case with urban dwellers in European countries. Most industrial centres, both in Great Britain and on the continent of Europe, are characterized by the miles of small gardens by which they are surrounded. In Canada large areas in close proximity to our cities are allowed to remain idle, which might profitably be put under cultivation by the artisans and other workers in the city.

The Canadian orchards were made up as follows. (The number of trees were those in existence on June 1st, 1911, namely, the time when the census was taken. The production was for the year previous, namely, 1910).

Kinds of Fruits.	Trees Bearing.	Trees Non-Bearing.	Production. Bushels.
Apple	10,617,372	5,599,804	10,618,666
Peach	839,288	1,056,359	646,826
Pear	581,704	385,538	504,171
Plum	1,075,130	637,220	508,994
Cherry	741,992	495,082	238,974
Other	146,659	141,233	47,789
Total	14,002,145	8,315,236	12,565,420

The production of small fruits was as follows:—

Grapes	32,898,438	lbs.
Strawberries	18,686,662	boxes.
Currants and Gooseberries	3,830,609	quarts.
All others	9,000,208	boxes.

The value of Canada's fruit and vegetable production in 1910 by provinces was as follows:—

Province.	Orchard Fruits.	Small Fruits.	Vegetable.	Total.
Ontario	$5,564,133	$2,254,913	$6,043,617	$13,862,663
Quebec	1,186,479	284,633	5,797,666	7,268,778
Nova Scotia	1,547,245	87,161	1,392,039	3,026,445
British Columbia	1,022,576	312,528	1,023,263	2,358,367
Manitoba	7,146	14,690	1,428,402	1,450,238
New Brunswick	267,993	62,806	873,861	1,204,660
Alberta	401	6,469	1,129,922	1,136,792
Saskatchewan	327	3,828	1,047,082	1,051,237
Prince Ed. Island	132,233	25,564	70,692	228,489
Total	$9,728,533	$3,052,592	$18,806,544	$31,587,669

Field Crops.—The area and production of Canada's field crops in 1910 were as follows:—

Crops.	1910. Acres.	Bushels.	Average yield per Acre. Bushels.
Wheat, all	8,864,514	132,077,547	14.90
Wheat, fall	977,615	20,408,360	20.87
Wheat, spring	7,886,899	111,669,187	14.15
Barley	1,283,094	28,848,310	22.48
Oats	8,656,179	245,393,425	28.35
Rye	114,728	1,542,219	13.44
Corn for husking	293,951	14,417,599	49.05
Buckwheat	357,513	7,102,853	19.86
Peas	355,191	4,788,916	13.48

Beans	46,299	826,281	17.85
Mixed grains	426,957	13,086,400	30.65
Flax	582,185	4,244,935	7.29
Grass seed	....	141,085	.....
Clover seed	....	336,445	.....
Potatoes	464,504	55,461,473	119.40
Turnips	112,305	47,371,434	421.81
Mangolds	56,729	30,353,132	535.05
Sugar beets	17,710	6,498,101	366.92
Other field roots	7,821	2,436,367	311.52
		Tons.	Tons.
Hay and Clover	8,289,407	10,406,367	1.25
Alfalfa	54,804	115,189	2.12
Corn for forage	294,347	2,705,103	6.86
Other forage crops	257,838	343,228	1.33
		Lb.	Lb.
Tobacco	18,928	17,632,342	934.19
Hops	1,164	1,208,450	1,039.97

The value of Canada's field crops by provinces in 1910, was as follows:—

Ontario	$140,786,055
Saskatchewan	79,754,903
Quebec	65,353,528
Manitoba	45,509,520
Alberta	17,015,329
New Brunswick	11,030,237
Nova Scotia	11,005,033
British Columbia	7,246,018
Prince Edward Island	6,613,172
Total	$384,513,795

Animal Products—On June 1st, 1911, there were on Canadian farms the following animals:—

	Horses.	Milch Cows.	Other Cattle.	Sheep.	Swine.	Poultry.
Ontario	812,214	1,032,996	1,468,540	742,188	1,887,451	14,488,980
Quebec	371,571	754,220	699,049	637,088	794,351	5,161,794
Saskat.	507,468	181,168	452,470	114,216	286,295	3,393,403
Manitoba	280,374	155,328	280,240	37,322	188,416	2,585,903
Alberta	407,153	147,649	592,076	133,592	237,511	2,453,117
Nova Scotia	61,420	129,274	158,218	221,074	63,380	954,251
N. B.	65,409	108,557	113,671	158,316	87,393	982,251
P. E. I.	35,935	52,109	61,334	91,232	56,377	760,939
B. C.	57,414	33,954	105,230	39,272	33,604	1,012,220
Total	2,598,258	2,595,255	3,930,828	2,174,300	3,634,778	31,793,261

The principal items of poultry were as follows:—

Hens and chickens	29,773,457
Turkeys	863,182
Geese	629,524
Ducks	527,098

The value of animal products, including the value of animals sold or killed in 1910 was as follows:—

Horses	$46,810,659
Cattle	74,025,205
Sheep	5,455,357
Swine	51,344,366
Dairy Products	103,381,854
Eggs	23,270,763
Wool	1,602,044
Poultry—not given	———
Total	$305,890,248

In considering the above figures it should be borne in mind that some animals may have been sold more than once during the year, particularly in cases where they have been bought for feeding and fattening purposes and later on sold for home consumption or export.

According to the returns given in the census of 1911, the value of the products of Canada's Agricultural Industries were, therefore, as follows:—

Orchards and gardens	$31,587,669
Field Crops	384,513,795
Animals and Animal Products, about	300,000,000
Total	$715,101,464

This figure, however, does not represent the net returns to the industry of agriculture because much of the field crops are used by the farmers to feed their stock. Some idea of the value of the agricultural products of Canada may be had from an examination of the exports and imports of agricultural products. For each of the fiscal years of 1911 and 1914, we have the following taken from the Government trade returns.

	Exports. 1911.	Imports. 1911.	Exports. 1914.	Imports. 1914.
Animals and Animal Products	52,244,174	16,322,635	53,349,119	24,040,761
Grain Crops	82,601,284	30,419,498	198,220,229	39,442,183
Total	$134,845,458	$46,742,133	$251,569,148	$63,482,444

Canada's requirements of southern fruits such as oranges, bananas, etc., and seed corn for forage purposes—articles not grown in this country—form a considerable amount of the above imports. But even including these, the agricultural industry of this country feeds its population of over 8,000,000 people and has a surplus approximating a value of $200,000,000 for export.

Canada's importations of wool and woollen goods, cotton and cotton goods and all other textiles and clothing of all kinds, amounts to about 120 millions of dollars a year, so that in the net results, the agricultural industry may be said to feed and clothe her population and have a net surplus of 70 millions of dollars annually. This, of course, is in addition to any other service which this industry renders in the way of supplying the country with horses, improving its own stock, etc., and in keeping pace with the settlement and development of the country which in itself has been a considerable demand, particularly during the years under review. The exports of agricultural products during the year ending March 31st, 1915, were considerably in excess to those of 1914 or any previous year. This is due mainly to two considerations. First, the decrease in domestic requirements on account of a decrease in emigration, and second to the constant improvement that has taken place in the facilities of and power for production.

MANUFACTURING.

At the time of the Peace of Paris, when Canada passed to the English, or even thirteen years later when the New England States gained their independence, there was little or no manufacturing anywhere, not even in England, that was not performed by hand in the home or in a small shop which bore a relation to the home similar to that of the country blacksmith shop of to-day. Every piece of work was done by hand. The workers showed no tendency to concentrate in cities or towns. The existing groups seldom amounted to more than a village. Horse power and a few crude water powers were the only forces known and the requirements for these were exceedingly limited as there was no machinery to drive. The grain was threshed with a flail and ground with a mortar. The invention of machinery and the development and application of mechanical power has been simultaneous in Great Britain, United States and Canada. An invention or a discovery made in any one of these three countries was not long in spreading to the other two.

The period from the Declaration of Independence to the Battle of Waterloo was marked by startling changes on every side of the economic life of these three countries. The flying shuttle was adapted to cotton-weaving about 1760 and the spinning jenny about 1770; but little progress was made with either of these machines until after 1774 when certain disabilities regarding the sale of their products were removed and water power was applied to operate them. From this date the factory system may be said to commence and to have entered upon the long struggle between domestic handicraft and machine industry. The result was never in doubt. By 1815 the nucleus of several factory centres in both Great Britain and America were well under way, turning out factory made goods, particularly textiles from crude machinery, which, nevertheless, embodied well-defined principles and which was driven by water power and the steam engine. In this period the use of coal for the smelting of iron as well as for the generation of steam became general and the puddling process by which malleable iron is made was discovered. The use of the steam engine in creating a blast improved the blast or smelting furnace and thereby considerably augmented the production of iron, converted the blacksmith shops into foundries and generally revolutionized the whole hardware business.

During the next period the only important advancement in manufacturing lay in the application of steam to locomotion and the development of the railroad and the steamboat. This period is characterized chiefly by the long and bitter conflict between the classes and the masses, largely brought about by the new conditions which machinery had created, by the new spirit awakened by life in America and by the dawn of education and a spreading of the reading habit. The termination of this unrest was not simultaneous in the three countries. In England it ended with the repeal of the Corn Laws in 1846; in the United States it continued until after the Civil War; and in our country the greater expansion began only after the Confederation Act in 1867.

Previous to 1867 the ingenuity of the silent and patient inventor had evolved the principles of the reaper, the sewing maching, the telegraph and the vulcanization of rubber. During the immediately succeeding years, the telephone, the dynamo and the arc lamp appeared. But it was not until 1880 that these began to be manufactured and applied to the general use of mankind in a way that has meant so much to our comfort and prosperity. With this year also the world entered upon a period of invention and discovery undreamt of before. "The ten years beginning with 1880 saw an outburst of inventive activity that dwarfed all similar periods in the history of invention. It seemed that the discovery of things electrical in the last three or four years of the previous decade was a signal for the pent-up genius of the world to let loose." *

The ten years that followed produced the trolley car, the incandescent lamp, the automobile, the typewriter, the cash register, the steam turbine, the gasoline engine, the type-setter and caster, the cyanide process, electric welding, smokeless powder, the phonograph, the air-brake, the transparent film, the pneumatic tire, the half-tone process, the coupler, the cream separator, dynamite, etc. In the eighties the generation and utilization of electricity were developed and the dynamo, the transformer and the motor began to be manufactured on a large scale. In this decade the high furnace heat, which only the electrical current can produce, aroused the chemist and metalluristgist to efforts that have meant more to science and its application to industry than is generally understood. In fact, the discoveries and inventions that were made during the eighties seemed to leave little to be found and placed a heavy task upon the mechanic and the civil, mechanical, electrical and mining engineer, the metallurgist, the chemist and the physicist to perfect and to manufacture. But discovery and invention did not cease with the closing of the eighties. Since then, the world has received wireless telegraphy, the flying machine, the pneumatic tools and the wonderful development in the engines of destruction typified by the dreadnought.

The manufacture of machinery resulting from all these inventions and

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* "Scientific American, June 5th, 1915"

discoveries and their operation in factories and shops has produced industries that absorb the energies of a large and ever-increasing number of people. Much labor which used to be employed in the fields for the seeding and harvesting of crops by hand is now employed in making machinery, which enables one man to do the work of many. The textiles and foodstuffs that used to be made in the home are now manufactured in the factory. The work that used to be done by the cobbler, the carpenter, the waggon maker, the butcher and the miller is rapidly being absorbed and centralized into large plants.

According to the last census the manufacturing industry of Canada was registered as follows:—

Industries.	No. of Establishments.	Employees.
Food Products	6,985	52,730
Textiles	1,444	72,672
Iron and Steel Products	824	48,557
Timber & Lumber & re-manufactures.	4,999	110,049
Leather and its Finished Products	399	22,742
Paper and Printing	773	22,894
Liquors and Beverages	206	4,688
Chemicals and Allied Products	178	5,274
Clay, Glass and Stone Products	771	17,699
Metals and Metal Products—other than steel	341	17,502
Tobacco and its manufactures	173	8,763
Vehicles for Land Transportation	465	35,778
Vessels for Water Transportation	172	4,414
Miscellaneous Industries	1,011	38,537
Other Trades	423	8,826
Total	19,218	471,126

Many of the establishments included in the above table have already been considered under industries other than manufacturing, where they more properly belong. For instance, in the group labelled "Food Products" there are 3,626 cheese and butter factories and 1,521 fish curing establishments which, to be properly catalogued, should be classified with the industries of agriculture and fishing. For the same reason the 4,358 log and lumber camps and mills with 93,649 employees, which are included in the above group of manufactures labelled "Timber and Lumber," have been considered in a former part of this book as part of the lumber industry. Also many of the quarries, mines, mills and yards included in the groups labelled "Metals and Metal Products," and "Clay and Stone," have been considered when dealing with the industry of mining.

The country has been expanding with such rapidity, occasioning a corresponding increase in the demand for domestic consumption, that the manufacturing industry has had abundant opportunity for growth. There has also been an excellent opportunity for the working up, to a more highly finished article, the products of the country's natural resources for export, such as the milling of her grains, the canning of her fruits, meats, vegetables and fish, the making of paper from pulpwood, etc. Another feature of considerable encouragement to the manufacturing industry is the existence of excellent water falls, which furnish large quantities of electricity—the latest and most satisfactory kind of motive power—at a comparatively low rate. Canada's proximity to the markets of the world, more fully described in the introductory chapter of this book, is another factor of much importance in the outlook for the Canadian manufacturer, as well as for the producers of her natural products.

The first two above-mentioned factors, namely, domestic markets and supplies of natural products, are the main requisits for a manufacturing industry, either for domestic consumption or export. This country would not be the factor she is in the export of agricultural implements, vehicles, leather or threshing and other machinery, if she had not such a domestic market for these articles as she has. It should also be noted that Canada would not have, for export, such articles as aluminium, were it not for her cheap electrical power. Aluminium is made from imported bauxite by electrical process.

The value of the exports of the above-mentioned articles during the last four years was as follows:—

	1911	1912	1913	1914
Agricultural Implements	$5,903,199	$5,698,537	$6,152,559	$7,219,520
Leather and manufactures of.	1,998,955	1,850,462	1,423,583	3,213,941
Vehicles	1,151,192	1,975,187	2,623,730	4,014,573
Threshing machines and all other machinery	990,789	962,992	1,260,349	1,459,876
Aluminium & manufactures of	907,907	1,355,654	1,645,652	1,891,673

Chapter II.

COMMERCE

Trade Transportation Market Weights and Measures

Commerce is the traffic or trade in goods. When this traffic takes place between people situated in places within the same country it is referred to as the **Domestic** or **Home Trade** or **Commerce** of that country. When the traffic or trade is between people in different countries, it is regarded as **Foreign** or **International Trade** or **Commerce.** The country from which the goods come is the **Exporting Country,** and the goods are regarded by such as **Exports.** The country receiving the goods is the **Importing Country,** and the goods are regarded by it as **Imports.**

As long as mankind lived in scattered and isolated families and tribes, each supplying its own wants directly by its own labor, there was little or no commerce or trade. Commerce had its birth in the division of labor; and in proportion as specialization of labor and production advanced did commerce expand.

In the beginning it was most natural that the man who knew how to make shoes should supply not only his own requirements but also those of his neighbours, who, in turn, exchanged a part of the product of their craft or labour for shoes. The greatest division of labour began with the introduction of machinery and the use of power. As these two factors became developed, the factory product replaced more and more the home-made and the home-grown article, until at the present time the activities of the whole people of any country and even of the world may be divided into distinct industries, each providing a certain kind of article or articles for domestic use or for export, which, through the medium of trade and commerce, is exchanged for the articles required to satisfy the wants of its workers, who purchase them with the wages or salaries they receive for their work.

Commerce is further enhanced by reason of the fact that many industries tend to become localized on account of some particular circumstance. For instance, nowhere in the world is nitrate found in so extensive a deposit as that which exists in Chili, South America, with the result that Chili supplies the world's requirements of this article. For a similar reason Louisiana, U.S.A., and Sicily, Italy, supply the world with most of its requirements of sulphur, and Canada supplies the world's markets with nickel, asbestos, and cobalt. For the same reason Canada is an important factor in the world's supply of pulp and paper, wheat, flour and fish.

Again, some communities excel in the production of certain articles, with the result that they become the centre of these industries. This accounts for Leicester being the centre of the English boot and shoe industry, Massachusetts the centre of the same industry in the United States, and Montreal holding the same position in the Canadian industry of boot and shoe making. Furthermore, industry often seeks a certain locality on account of its better shipping facilities or on account of cheap power, or for some other advantage.

But whether it is because of the division of labor or by reason of an abundant harvest in one place, while famine exists in another, or the advantage which one place possesses over others on account of some facility for production, the foundation of trade and commerce is the same. It lies in the fact that commodities, after bearing the cost of transit, are of more value in one place than in another, and it is the business of the merchant, the salesmen, and the purchasing agent, assisted by advertisements, to seek out these inequalities and to gather in what profit the process of equalization may afford. In this process of equalization or levelling up, the tendency of commerce is to connect one seat of population with another, to open up new routes, to seize on every physical advantage of transit between them, and by the union, not only of labor and capacities, but of almost boundless diversified territorial resources to increase the production and circulation of commodities.

"It is the natural effect of Commerce to bring prices as nearly as possible to a uniform level all over the world, and to this end railways and steam navigation have mainly co-operated. No longer do we see the inequalities of only a few years ago, when the value of the same commodity was often 50 per cent higher in one place than another only a hundred miles distant."*

FOREIGN COMMERCE.

In former times, and even to a comparatively recent date, the facilities for and the responsibilities of transporting goods rested with the individual or group of individuals, who purchased the goods with cash or kind in one market, carried them by caravan or ship, which they protected against robbers and pirates by private forces, and sold for cash or kind in another market. How different is all this to-day, when, with the aid of international banks, insurance corporations, railroad and steamship companies, navies, the mail, the telegram, and the cable, the merchant may sell a bill of goods to a person on the opposite side of the earth, procure at shipping point a through rail and ocean **Bill of Lading** to final destination; or, if he so desire, he may obtain from the railway agent a local **Shipping Receipt** to the seaboard, this to be exchanged at the ocean port for a **Marine Bill of Lading,** get his **Marine Insurance Certificate** from a broker, attach both to a **Draft** drawn on the purchaser **At Sight** or 30, 60, or 90 days **After Sight,** get the necessary **Clearing Papers** from the **Customs,** deposit all these, together with an **Invoice** for the goods, with his **Banker,** and have the proceeds of the draft **Discounted** at the current rate of **International Exchange,** placed to the credit of his account, without leaving his office. This is generally spoken of as selling and shipping **Sight or Time Draft Against Documents.** In the above case it is assumed that the goods have been sold for a certain price C.I.F. (charges, insurance and freight paid up to) at the port of entry. Beyond this the **Consignee,** or **Purchaser,** that is the person to whom the goods are **Consigned** by the **Consignor** or **Seller,** will require to pay the **Port Dues** and any **Import Duties** which the **Fiscal Policy** of the country of entry may impose. He will also be required to pay Lighterage (if any), for the carrying of goods from the **Ocean Steamer** to the **Docks.** Lighterage is necessary only when the ocean vessel cannot get alongside of the dock or wharf where the goods require to be delivered. In the Port of London, England, the business of lighterage is considerable, because of the congestion of shipping with a limited wharfage, and also because ocean going vessels do not pass further up the Thames than London Bridge. He also pays the **Dock Dues,** the **Cartage** from the docks to the railway, and the **Freight Charges** by rail to the place of delivery. At most large ocean ports there are **Shipping** or **Transportation Agents,** who look after the trans-shipment of the goods from the steamer to the railway, and who pay the above-mentioned charges, for which services they receive a stipulated **Fee,** or sometimes a **Commission,** that is a small percentage of the value of the goods handled. In this case the purchaser releases the bill-of-lading at the bank as soon as it arrives, by paying the attached draft, if it is drawn at sight, or by giving his **Acceptance** to it, if it is drawn at thirty, sixty, or ninety days "after sight," or "after date." The bill-of-lading is then sent down to the transportation agent to await the arrival of the goods, which generally travel by a **Freighter,** that is a steam or sailing vessel carrying freight, and hence arrives later than do the documents which travel by registered mail on a fast **Ocean Liner.**

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* "The History of Prices," by Molhdl.

If satisfactory relations had not been previously established between both, the **Vendor,** that is the person who sold the goods, might require the **Purchaser** to buy the goods F.O.B. (free on board) the cars at the point of production, in which case, the purchaser would require to authorize payment by a **Letter of Credit,** or in some other way before the goods were shipped. When purchases are made in this way, the buyer pays all the charges of shipment, including railway carriage to the port of departure, export duties, if any are imposed, trans-shipment charges, including dock duties, port duties, etc., the ocean freight, insurance, all trans-shipment charges at the port of entry, import duties and railway charges to the point of destination. In most cases where goods are sold F. O. B. at point of production, they are financed by the shipper consigning them to his own order and drawing on the consignee for the value of the goods at point of production with invoice and through bill of lading attached to his draft. The consignee pays the draft and also the freight and other charges from the point of production, upon the arrival of the goods at the foreign destination.

Often the goods require to be stored, as they would if a larger quantity is purchased than can be disposed of at once, or when they are bought at one season of the year to be sold at another, or if the **Market Falls,** that is, if the market price goes down. In this case they are put into **Ware-**

houses, either with or without **Cold Storage,** or in the case of grain, may be put in an elevator. In this case the owner receives a **Warehouse Certificate,** on the credit of which **Collateral** or security the banks will advance money with which the owner may pay for the goods. Goods in warehouse may be sold, and the ownership transferred by simply **Endorsing** the warehouse receipt to the purchaser or new owner. Some countries that levy import tariffs maintain **Free Ports,** where the cargoes may enter and be trans-shipped to vessels for other ports without payment of the import duty. Other countries maintain at the ports of entry **Bonded Warehouses,** where goods are received **In Bond,** and the Import Duties are not paid unless or until the goods are taken out for consumption in the country of entry. Goods may also be shipped in bond through one country and into another by the **Customs Officer** simply putting the seal of bond on the car, if the goods are being shipped in carload lots (C.L.) or on the packages if the goods are being shipped in less than carload lots (L.C.L.). Goods on which an excise duty is levied, such as tobacco and liquors, are manufactured and stored in bond, and the excise duty is not paid until the goods are taken out of warehouse for shipment or for consumption.

Metropolitan ports such as London, Liverpool, New York, etc., have direct and regular sailings to practically all the principal ports of the world, and goods originating at smaller ports may require to be carried first to one of these metropolitan ports and there trans-shipped on a vessel that has regular sailings to the port which the goods are intended to reach. Where shipments of goods are large enough to fill a vessel, a **Tramp Vessel,** that is a vessel without regular sailings, may be chartered to carry the cargo direct to its ports of destination for a fixed rate. The lease in such a transaction is called the **Charter Party** (from Chart Partie or divided Chart) from the practice of cutting the document in two and giving one part to each of the contracting parties.

When railroad cars or vessels are detained beyond the time allowed for loading or discharging, a charge for this loss of time, called **Demurrage,** is made.

Tonnage. The present system of registered tonnage was introduced by Great Britain in 1854. The space in the hull or body of a vessel is ascertained by measuring the area of the cross sections and the length, and 100 cubic feet of space is a registered ton.

Net Tonnage is the space available for cargo and passengers after that occupied by the engines, coal bunkers or bins, etc., has been deducted.

Freight Ton is an arbitrary measure of 40 cubic feet or 2240 lbs. Freight rates on all compact commodities such as ores, loose or in bags, or **Bales,** that is canvas covered packages of cotton, wool, tobacco, etc., are quoted so much per **Ton Weight,** providing of course that a ton does not occupy a space of more than 40 cubic feet, in which case the rate will be charged on the Freight Ton rate of 40 cubic feet. Freight rates on certain other commodities such as grain in bags or in bulk are quoted so much per bushel, or more generally so much per quarter of eight bushels for heavy grains, such as wheat, and of ten bushels for light grain, such as oats.

Dunnage is any loose substance used to pack a ship's cargo to prevent it from shifting which might cause the ship to **List** during the voyage.

Load Line is a line marked on the sides of vessels. When the vessel is loaded down to this line, she has as much cargo as she can safely carry.

Bill of Sufferance is a license allowing coasting vessels to load or unload at **Sufferance** wharves without paying duties.

Clearance Papers is the permit given by the port authorities allowing a vessel to clear or sail from the port. In this document the port of destination is also generally stated.

Manifest is a list of a ship's cargo in which the mark and number of each package is given, together with the names of the shippers and consignees. It is usually signed by the master or chief officer of the vessel and made out in triplicate. A copy is kept by the master, another is retained at the port of departure and a third is forwarded to the port of destination where, upon arrival, the consignees are notified that their goods are coming on a certain vessel which will arrive on such a day and will unload at such a wharf. The consignees are thus given an opportunity to make arrangements for receiving the goods directly from vessels so as to save storage. Any goods that are not received directly are put into storage by the shipping company, because the master of the vessel does not allow such delay to detain him. He unloads, takes on his return cargo and clears from port as rapidly as possible.

The British Government publishes daily the manifests of all cargoes arriving or departing from each of the principal ports of the United Kingdom. These are subscribed for by all merchants, manufacturers and shippers, and are of great assistance to commerce and industry. In the United States the regulations of most ports require that the manifests may be had by such publications as desire to publish them. But in Canada they may be had only at the pleasure of the shipping companies, with the result that this excellent means of encouraging trade is neglected.

Goods are referred to as being **Short Shipped** when they are left over in port because of more freight being offered than the ship can carry.

Primage is the sum of money formerly paid by shippers or consignees to masters of Tramp Vessels for the use of ropes, tackles, etc., in loading or unloading, or sometimes paid to the masters as a gratuity for special care of goods. Primage is charged at present by regular liners on possibly fifty per cent. of the commodities carried. Tramp steamers to-day seldom charge primage.

London Clause Charge is a charge levied by practically all North Atlantic shipping companies on goods carried to the Port of London. The Port of London authority receives no part of this charge, as is generally understood. It all goes to the shipping company. Moreover it is levied only on goods coming from Canada and United States. The tariff levied and which is set out in full on the margin of all North Atlantic Bills of Lading, is in part as follows:—Lumber and logs, 2s per ton measurement, or 2s 6d per ton weight at ship's option. Cheese, 3s 6d per ton weight; Wheat, corn and heavy grains, 1s 9d; Barley, 1s 11d; Oats, 2s; Hay and Oil, 1s 9d per ton.

Customs Offices are maintained at freight centres, express offices and post offices where imports are examined by **Customs Officers** and the customs duties levied according to the schedule of import or export duties authorized by the government. In the case of large shipments or where the purchaser is in a hurry to get delivery of his goods, the Customs Officers will allow immediate delivery of the greater part of the shipment, retaining for examination purposes only a package or two, or a small quantity, which is also delivered after the examination is made.

Dock Warrant is a document given by the owner of the goods to a carter or other person authorizing him to remove or sell goods lying in dock. The dock warrant that is most frequently met with in Canadian ports is the warrant issued by the customs to the officer at the dock stating that the customs' charges have been paid on the goods in question and that the consignee is permitted to take delivery in so far as the customs are as the customs are concerned.

Very often goods are consigned to the master of the ship for transport to a certain port.

DOMESTIC COMMERCE.

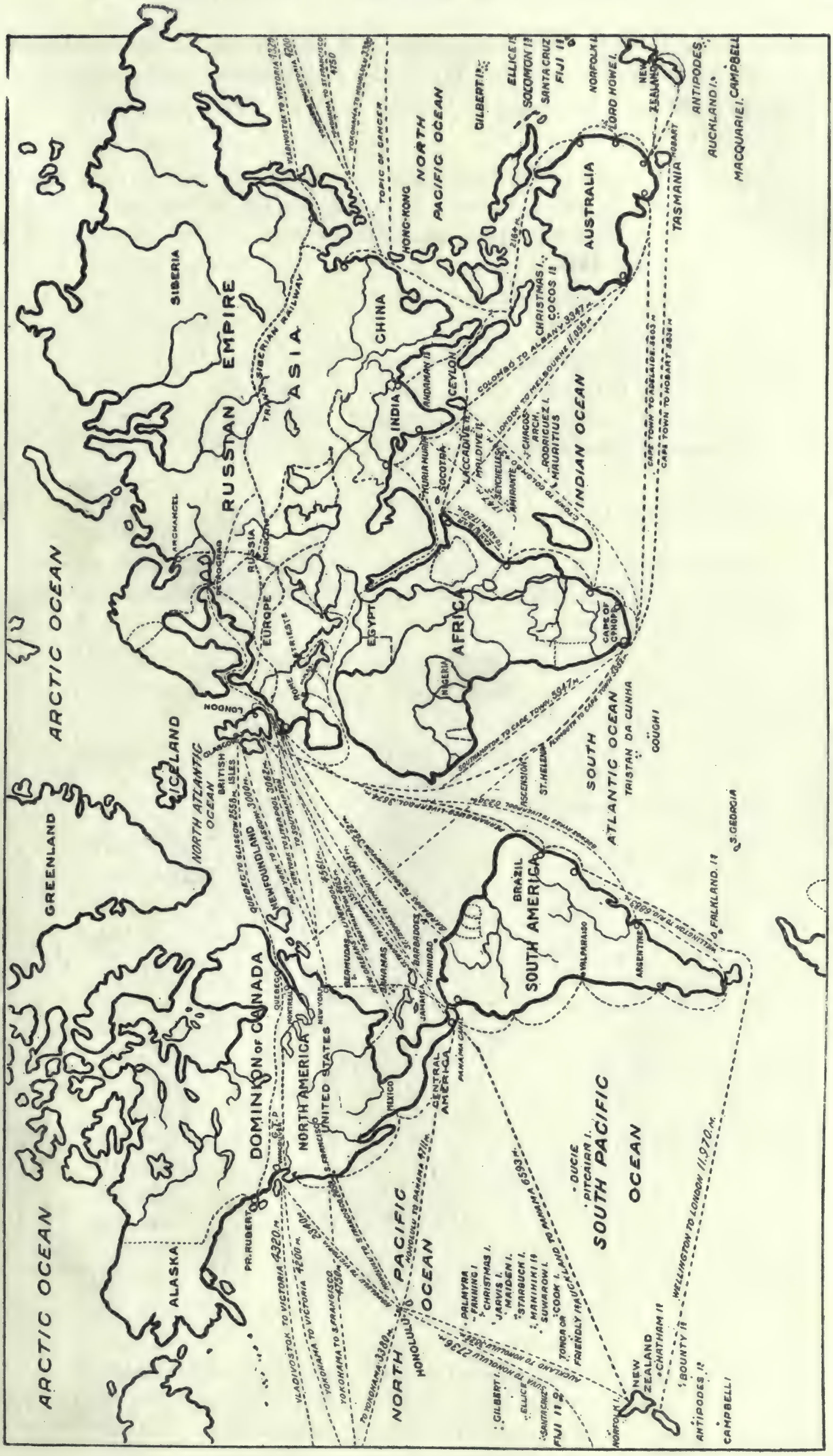
The foregoing account of procedure and terms applies more particularly to international commerce, but much of it also applies to domestic commerce, especially where the distance over which the goods are to be shipped is considerable. Where the commerce is of a purely local character, the filling of an order for goods is made in the same manner as the local tradesman deals with his customers, that is, he sends the goods either by his own delivery or custom carter, or by railway, by boat freight, by express or by parcel post, c. o. d. (cash on delivery) or he makes delivery and charges them up to the customer and renders his account, weekly, monthly or at other periods agreed upon. In most cases except in those of the local grocers or other tradesmen supplying goods to his customers, a **Delivery Receipt** is given in duplicate, one copy of which is retained by the carter or delivery man and the other copy is left with the receiver of the goods for his files. All orders for goods should also be made in duplicate, one copy being retained by the purchaser and the other sent to the person or firm filling the order. In fact, it is a good practice in commerce to keep records of all despatches and receipts of goods. Such records enable goods that are lost in transit to be more easily located as well as keep the affairs of the firm in proper shape.

Goods may be carried by water, by rail or by waggon road, either as ordinary freight, fast freight or express or by parcel post.

OCEAN TRANSPORTATION.

In the matter of ocean transportation, there is but one way of carrying goods, namely by boat, either steam or sail. Until the middle of the last century, wooden sailing vessels alone were used. In these days the cost of carrying goods was great, because of the time taken, the uncertainty of the voyage and the small size of cargo.

The first steamship to successfully operate commercially was the "Clermont," built in 1807, which plied on the Hudson River. The first steamship of commercial importance to cross the Atlantic Ocean was the "Sirius," which sailed from London on the 4th of April, 1838. But it was not until about ten years later, when iron and steel began to replace wood as a


ARCTIC OCEAN
GREENLAND
ICELAND
NORTH ATLANTIC OCEAN
BRITISH ISLES
LONDON
GLASGOW
EUROPE
RUSSIAN EMPIRE
SIBERIA
ASIA
CHINA
INDIA
CEYLON
HONG-KONG
NORTH PACIFIC OCEAN
AFRICA
EGYPT
NIGERIA
CAPE OF GOOD HOPE
INDIAN OCEAN
AUSTRALIA
TASMANIA
NEW ZEALAND
SOUTH ATLANTIC OCEAN
SOUTH AMERICA
BRAZIL
ARGENTINE
FALKLAND IS
ST. HELENA
ASCENSION
TRISTAN DA CUNHA
NORTH AMERICA
DOMINION OF CANADA
UNITED STATES
MEXICO
CENTRAL AMERICA
PANAMA CANAL
ALASKA
PACIFIC OCEAN
SOUTH PACIFIC OCEAN
HONOLULU
TRANS-SIBERIAN RAILWAY
TOPIC OF CANCER
WELLINGTON TO LONDON 11,970 M.

THE PRINCIPAL COMMERCIAL ROUTES OF THE WORLD.

material for building ships, that the merchant marine of the world, (that is freight and passenger vessels), and the navies of the world (that is ships of war for the protection of commerce on the high seas), began to advance to the position they now hold.

As late as 1840 a vessel of 500 tons was considered large, while at the present time there are vessels with a tonnage of as much as 54,282 tons, and of the total number of vessels that were in commission on July 1st, 1914, 1,813 were vessels of over 5,000 tons each.

In size this number was made up as follows:

Vessels over 20,000 tons	19
Vessels between 15,000 and 20,000 tons	34
Vessels between 10,000 and 15,000 tons	178
Vessels between 7,000 and 10,000 tons	424
Vessels between 5,000 and 7,000 tons	1,558
Total	1,813

The Merchant Marine of the world on July 1st, 1914, including all vessels, either on the ocean or engaged in inland waters and including vessels of 100 tons and over, was as follows:—

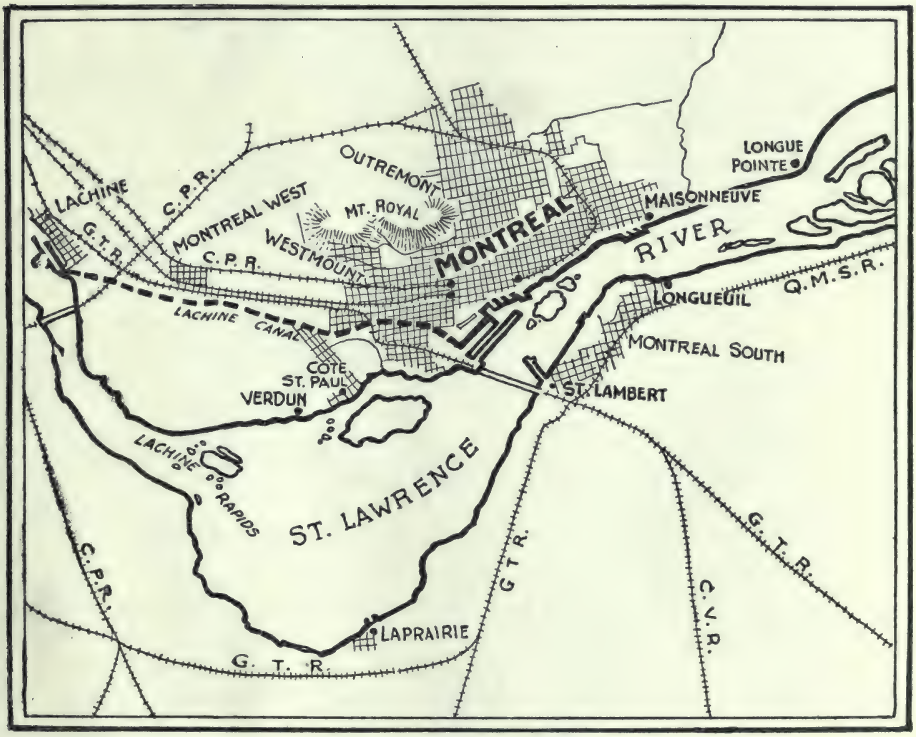
Sailing ships	6,392	with a tonnage of	3,695,675
Steamships	24,444	with a tonnage of	45,403,877
Total	30,836	with a tonnage of	49,099,552

These were registered as follows:—

Country.	No. of Ships.	Tonnage.
British Empire	11,328	21,045,049
Germany	2,338	5,459,296
United States	3,174	5,368,194
Norway	2,191	2,504,722
France	1,576	2,319,438
Japan	1,103	1,708,386
Italy	1,160	1,668,296
Holland	806	1,496,455
Sweden	1,466	1,118,086
Austria-Hungary	445	1,055,719
Russia	1,254	1,053,818
Spain	647	898,823
Greece	487	836,868
Denmark	822	820,181
Belgium	482	352,124
Brazil	448	323,929
Argentine	313	221,681
Turkey	2202	133,158
Chile	123	125,917
Portugal	210	120,931

The world's ship-building of merchant vessels of 100 tons and upwards during 1913 was as follows:—

Country.	No. of Vessels.	Tonnage.
British Empire	779	1,980,492
Germany	162	465,226
United States	205	276,448
France	89	176,095
Holland	95	104,296
Japan	152	64,664
Austria-Hungary	17	61,757
Norway	74	50,637
Italy	38	50,356
Denmark	31	40,932
Other Countries	108	61,979
Total	1,750	3,332,882


LACHINE
C.P.R.
G.T.R.
MONTREAL WEST
OUTREMONT
MT. ROYAL
WESTMOUNT
C.P.R.
MONTREAL
MAISONNEUVE
LONGUE POINTE
RIVER
Q.M.S.R.
LONGUEUIL
MONTREAL SOUTH
LACHINE CANAL
COTE ST. PAUL
VERDUN
ST. LAMBERT
LACHINE RAPIDS
ST. LAWRENCE
G.T.R.
C.V.R.
G.T.R.
C.P.R.
LAPRAIRIE
G. T. R.

MONTREAL HARBOR.

According to the annual report of the department of Marine and Fisheries, the year 1914 was the best that Canada has had since the advent of steel shipbuilding. In that year the new vessels built in Canada aggregated 43,-

346 tons. The increase in the year's production, however, was reduced to 35,457 tons by reason of the year's loss in vessels from sinking, selling and breaking up of old craft. The number and tonnage of vessels registered in Canada at the close of 1914 was 8,722 vessels with an aggregate tonnage of 932,422 tons.

The number of sea-going vessels which entered Canadian ports during the year ending March 31st, 1913, was 18,087, with a registered tonnage of freight or in ballast of 13,575,193, and the number which cleared from Canadian ports during the same time was 17,597, with an aggregate tonnage of 12,655,905. The number of vessels trading on the inland waters of Canada, which arrived at Canadian ports during the same year was 30,814, with an aggregate tonnage of 16,147,103, and the number of vessels which cleared from the ports on the inland waters of Canada during the same year was 30,754 with an aggregtae tonnage of 15,471,582.

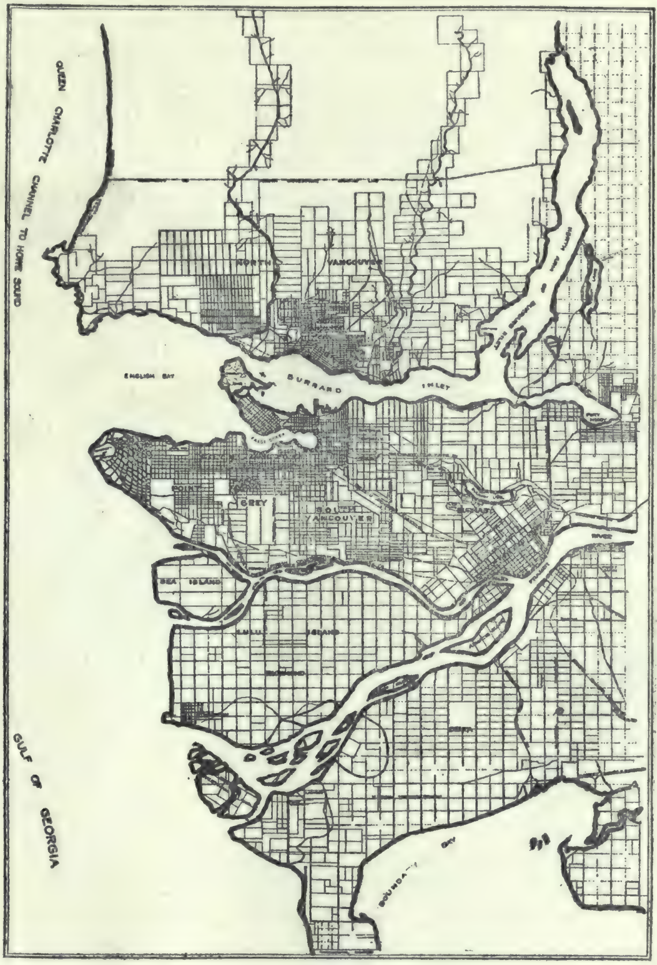
ST JOHN RIVER
COURTENAY BAY

ST. JOHN HARBOR.

For the purpose of fostering and encouraging Canadian trade, and creating as many direct sailings from Canadian ports as possible, the Dominion Government grants annual subsidies to certain steam ship routes, carry mails, etc. The following is the list of the routes with the subsidies granted for the year, 1914-15:—

Atlantic Ocean Routes.	1914-15.
Annapolis and London, or Hull	$ 5,000.00
Canadian Atlantic ports and Australia and New Zealand	140,000.00
Canada and Great Britain	1,000,000.00
Canada and Cuba	25,000.00

Canada and Newfoundland	70,000.00
Canada, the West Indies and South America	340,666.66
Canada and South Africa	146,000.00
Halifax, St. John's, Nfld., and Liverpool	20,000.00
Montreal, Quebec, and Manchester (in Summer) and St. John, Halifax and Manchester (in Winter)	35,000.00
St. John, Dublin and Belfast (Winter)	7,500.00
St. John and Glasgow (Winter)	15,000.00
St. John, Halifax, and London (Winter)	15,000.00
St. John, Halifax and London	25,000.00


QUEEN CHARLOTTE CHANNEL TO HOWE SOUND
NORTH VANCOUVER
ENGLISH BAY
BURRARD INLET
POINT GREY
SOUTH VANCOUVER
SEA ISLAND
LULU ISLAND
RIVER
GULF OF GEORGIA
BOUNDARY BAY

VANCOUVER HARBOUR.

Pacific Ocean Routes.

Canada, Australia or New Zealand, or both (Pacific)	180,509.00
Prince Rupert and Queen Charlotte Islands	16,000.00
Victoria and San Francisco	3,000.00
Victoria, Vancouver and Skagway	12,500.00

Victoria and West Coast Vancouver Island	5,000.00
Vancouver and Northern Ports of British Columbia	17,600.00

Local Services.

Baddeck and Iona	5,825.00
Charlottetown, Victoria and Holliday's Wharf	2,500.00
Froude's Point and Lockeport, N.S.	600.00
Gaspe Basin and Dalhousie or Campbellton	20,000.00
Grand Manan and the Mainland	10,000.00
Halifax and Canso	5,000.00
Halifax and Newfoundland via Cape Breton ports	10,000.00
Halifax, Mahone Bay, Tancook Island and LaHavre River ports	4,000.00
Halifax and Spry Bay	2,000.00
Halifax, South Cape Breton and Bras d'Or Lake ports	4,000.00
Halifax and West Coast Cape Breton	2,000.00

Quebec Harbour
ST LAWRENCE RIVER

QUEBEC HARBOUR.

Halifax and Sherbrooke	2,000.00
Kenora and Fort Frances	8,000.00
Mainland and Magdalen Islands	15,000.00
Mulgrave and Canso	6,500.00
Mulgrave and Guysboro	5,500.00
Port Mulgrave, St. Peter's, Irish Cove and Marble Mountain	6,000.00
Pictou, Mulgrave and Cheticamp	7,500.00
Newcastle, Neguac & Escuminac, Miramichi River and Bay	2,500.00
Pelee Island and the Mainland	5,000.00
Petit-de-Grat and I.C.R. terminus at Mulgrave	6,000.00
Petitcodiac River, Moncton and way ports	2,000.00
Pictou, Montague, Murray Harbor and Georgetown	6,000.00
Pictou & New Glasgow and Antigonish County ports	500.00

Prince Edward Island, Cape Breton and Newfoundland	16,500.00
Prince Edward Island and the Mainland	12,500.00
Quebec and Blanc Sablon	20,000.00
Quebec and Gaspe Basin	8,500.00
Quebec and North Shore of Isle of Orleans	4,500.00
Riviere du Loup, Tadousac and North Shore Ports	6,000.00
Riviere du Loup, Tadousac and St. Lawrence Ports (Winter)	8,000.00
St. Catharines Bay and Tadousac	3,500.00
St. John and Digby	20,000.00
St. John, Digby, Annapolis and Granville	1,500.00
St. John, Digby, Bear River and Clementsport	1,500.00
St. John and Bridgetown	2,000.00
St. John and St. Andrew's, N.B.	4,000.00
St. John and Halifax via Yarmouth	10,000.00
St. John and Bay of Fundy and Minas Basin ports	8,000.00
St. John and Cumberland Basin	3,000.00
St. John, Westport and Yarmouth	5,500.00
St. Stephen, St. Croix River, Deer Island and Campbello	6,000.00
Sydney and Bay St. Lawrence	6,000.00
Sydney & Whycocomagh	3,000.00
Sydney and East Coast of Cape Breton	5,500.00
Expenses in connection with the supervision of subsidized steamship services	3,000.00
Total	$2,375,700.66
Authorized by Statute.	
Canada, China and Japan	$121,666.00
Canada and France	200,000.00
Total	$2,697,367.00

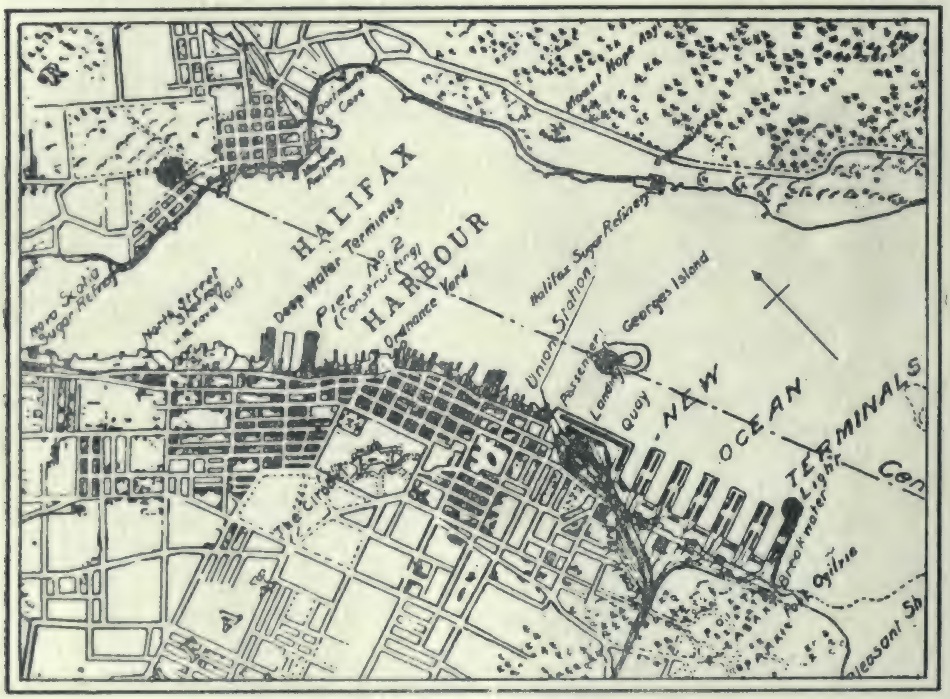
OCEAN PORTS.

London is the world's greatest port. The import goods handled by the Port of London Authority during the 12 months ending March 31st, 1914, amounted to 2,218,266 long tons. The exports handled in the same time amounted to 823,865 long tons. In the same time goods entering and departing from the Port of Liverpool, which is the world's third largest port, was only one-tenth less than that of London. The first ten ocean ports of the world in the order of their importance are as follows:

London, New York, Liverpool, Hamburg, Antwerp, Marseilles, Havre, Bremen, Buenos Aires, and Calcutta.

Montreal, which is Canada's largest, is one of the world's leading ocean ports, and does an extensive shipping trade during the open season, but on account of the navigation on the St. Lawrence being closed during the winter months, the aggregate shipping for the year falls below the other great ports of the world. On the Atlantic coast there are two good Canadian ocean ports that are open throughout the year, viz., St. John, N.B., and Halifax, N.S., but much freight going east of Montreal is diverted either to New York, on account of its larger number of direct sailings, or to Portland, Maine, which is the Atlantic terminus of the Grand Trunk Railway. On the Pacific coast of Canada, there are also two good ocean ports, viz., Vancouver, which has already a considerable trade that is growing rapidly, and Victoria.

The Dominion Government has provided much money for the dredging and deepening of Canadian ports, for the building of docks and storage and transhipping elevators, warehouses, drydocks, and in fact for the providing of every modern facility which would encourage shipping. The harbor of Montreal particularly is one of the best equipped in the world.

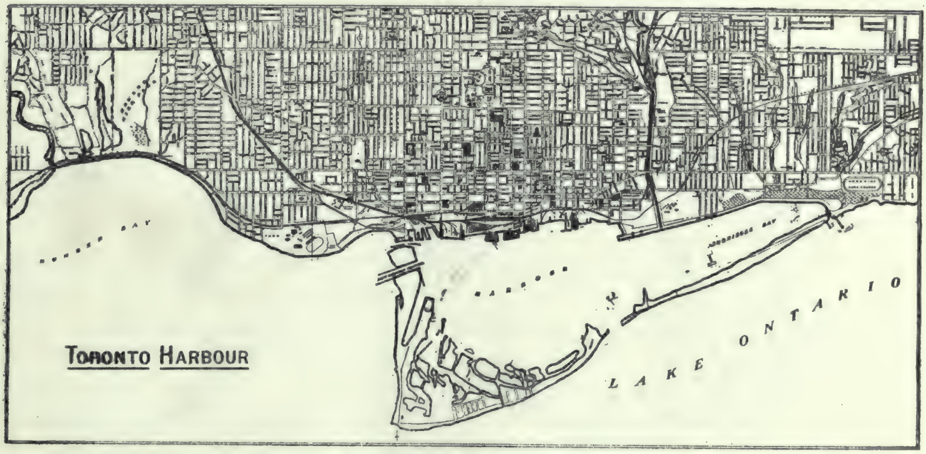

Mount Hope Asy
Dartmouth Cove
HALIFAX HARBOUR
Deep Water Terminus
Pier No 2 (Constructing)
Ordnance Yard
Nova Scotia Sugar Refinery
North Street Station
H.M. Naval Yard
Halifax Sugar Refinery
Union Station
Georges Island
Passenger Landing
Quay
NEW OCEAN TERMINALS
Con
Light
Breakwater
Ogilvie
The Citadel
Pleasant St

HALIFAX HARBOUR.

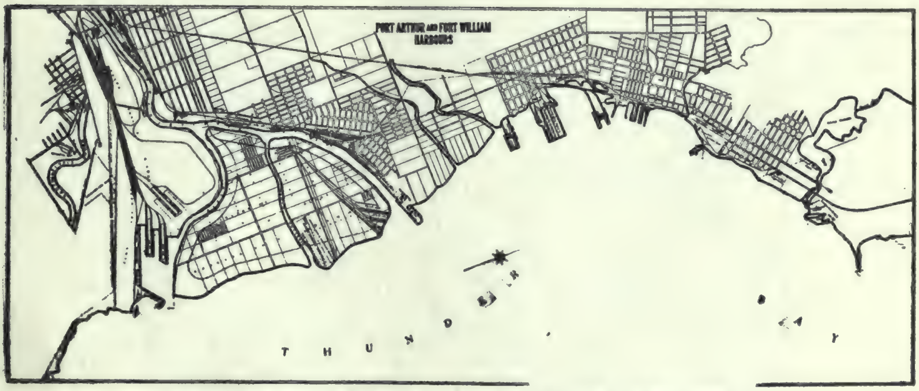
Much money has also been spent on the harbours of her inland waterways, particularly those situated on the Great Lakes.

INLAND WATER TRANSPORTATION.

From the beginning of commerce, and before the days of the railroad, goods were conveyed more cheaply by water than by road, and hence the main thoroughfares of trade lay along navigable water routes, and many of those that were not naturally navigable were made so by the building of canals, which enabled vessels to avoid swift currents, rapids and falls, and to penetrate into the country much farther than they otherwise could. Even since the advent of the railway, particularly in those countries such as Germany, France, Belgium and Holland, where equal attention has been given to the maintenance of canals and other inland water routes with that given to railroads, goods are carried by water much more cheaply than by rail. According to the evidence taken by the British Royal Commission appointed to investigate the possibilities of canals and inland navigation in Great Britain, goods are carried from the interior of Germany by canal, via, the Elbe, two hundred and ten miles, to Hamburg for 7s. ($1.71) a long ton, whereas the rail rate on the same class of goods between the same points is 21s. 6d. ($5.23). In Belgium, where forty-five per cent. of the total tonnage carried is by boat on the inland waterways, the average rate by boat for all classes of commodities is not more than one half the average rail rate. The results in these countries demonstrate that it is a mistake to feel that inland waterways are inimicable to the success of railroads. On the contrary, they are helpful. They are the best encouragers of inland industrial centres.

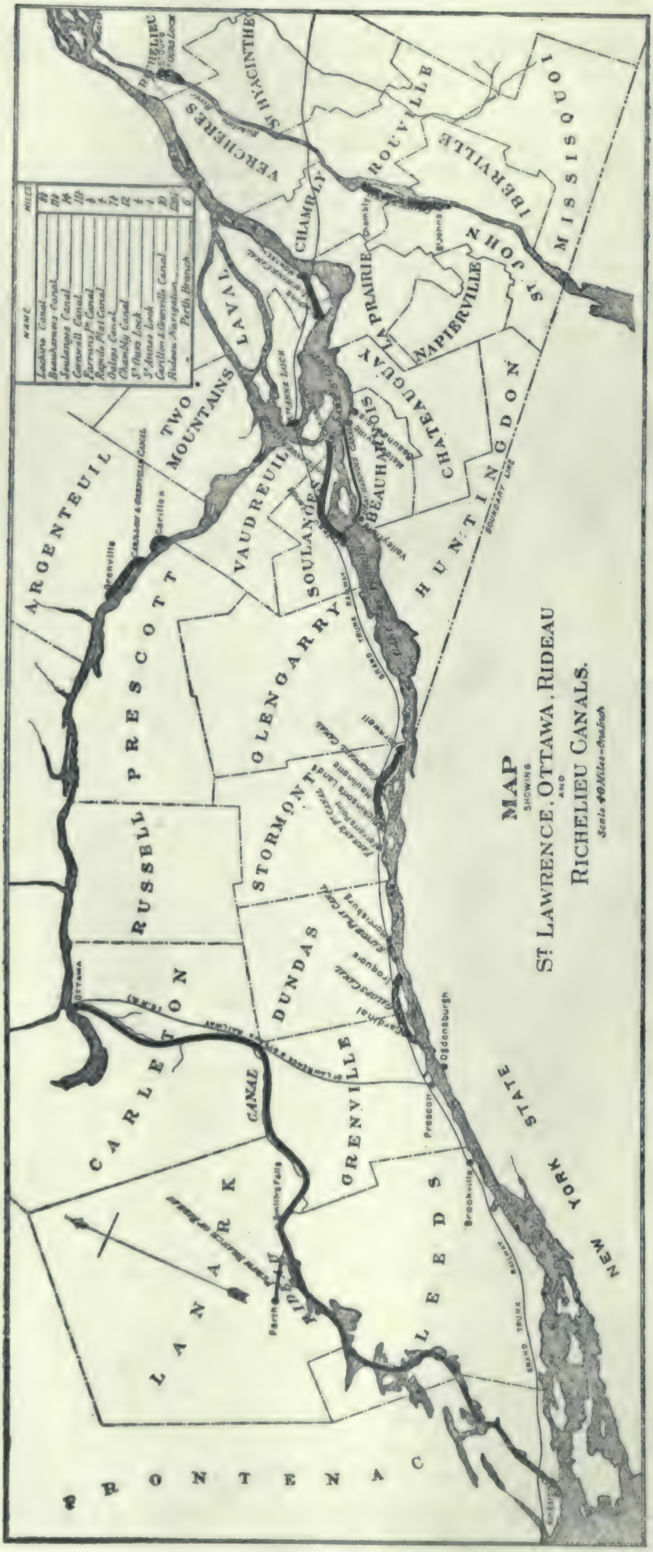


TORONTO HARBOUR.



PORT ARTHUR AND FORT WILLIAM HARBOURS.

Considering size, no country in the world is so well supplied with natural inland water routes as is Canada. Her finest is that stretching from the Atlan-


MAP
SHOWING
ST LAWRENCE, OTTAWA, RIDEAU
AND
RICHELIEU CANALS.
Scale 40 Miles—One Inch
NAME
MILES
Lachine Canal
Beauharnois Canal
Soulanges Canal
Cornwall Canal
Farrans Pt Canal
Rapide Plat Canal
Galops Canal
Chambly Canal
St Ours Lock
St Annes Lock
Carillon & Grenville Canal
Rideau Navigation
Perth Branch
FRONTENAC
LANARK
CARLETON
RUSSELL
PRESCOTT
ARGENTEUIL
TWO MOUNTAINS
LAVAL
VERCHERES
ST HYACINTHE
ROUVILLE
CHAMBLY
IBERVILLE
MISSISQUOI
ST JOHN
NAPIERVILLE
LA PRAIRIE
CHATEAUGUAY
BEAUHARNOIS
HUNTINGDON
VAUDREUIL
SOULANGES
GLENGARRY
STORMONT
DUNDAS
GRENVILLE
LEEDS
NEW YORK STATE
RIDEAU CANAL
Ottawa
Perth
Smiths Falls
Brockville
Prescott
Ogdensburg
Cardinal
Iroquois
Morrisburg
Cornwall
Carillon
Grenville
Chambly
St Johns
Sorel
Valleyfield
Kingston
BOUNDARY LINE
GRAND TRUNK RAILWAY
CARILLON & GRENVILLE CANAL
GALOPS CANAL
RAPIDE PLAT CANAL
FARRANS PT CANAL
CORNWALL CANAL
SOULANGES CANAL
BEAUHARNOIS CANAL
LACHINE CANAL
ST ANNES LOCK
ST OURS LOCK
Richelieu River

SOME RIVER AND CANAL ROUTES OF ONTARIO AND QUEBEC.

tic over a distance of 2,217 miles up the St. Lawrence and through the Great Lakes to Port Arthur and Fort William. At present this water route is navigable only as far as Montreal, and goods coming down from the ports on the Great Lakes by vessels that are not too large to pass from Lake Erie to Lake Ontario on the Welland Canal, or to go down from Lake Ontario through the St. Lawrence Canals, which are built to avoid the rapids on that river, trans-ship their cargoes to the ocean steamers at Montreal. Many lake boats that can pass through the Welland Canal are too large for the River St. Lawrence and its canals. These trans-ship their cargoes at Kingston to **barges** (vessels without sails or engines, which carry freight only), which are towed down to Montreal by **tugs** (steamers that do not carry freight, and which are built only for the purpose of hauling barges or other boats along with a **tow line**). When the improvements that are now being made on the Welland Canal are finished, vessels of even greater tonnage from the upper lakes will be able to get through to Kingston. The largest and most improved canal on this route is the Sault Ste. Marie Canal, which connects Lake Superior with Lake Huron. This, without doubt, is the finest canal in Canada.

Eventually, ocean vessels will be able to reach Port Arthur and Fort William, for there is no engineering difficulty in the way of so improving this great water route. It is merely a question of expenditure. One very encouraging feature about the project is the valuable water powers which could be developed, while at the same time the St. Lawrence canals are being improved. This would give Eastern Ontario a supply of cheap electrical power, which would stimulate industry in the eastern part of the Province of Ontario as the hydro-electric power from Niagara has in the western part of that Province.

The Canadian canals, the waterways which they open up, and the representative tonnage carried over each in the year 1913 are as follows:—

	Tons.
Sault Ste. Marie Canal (from Lake Superior to Lake Huron)	42,699,324
St. Lawrence Canals (from Kingston to Montreal)	4,302,427
Welland Canal (from Lake Erie to Lake Ontario)	3,570,714
Chambly Canal (from Lake Champlain to River St. Lawrence)	555,602
Ottawa Canals (from Ottawa to Montreal)	365,438
Murray Canal (from Lake Ontario to Bay of Quinte)	180,576
Rideau Canals (from Kingston to Ottawa)	171,223
St. Andrews Lock (from Red River to Lake Winnipeg)	81,295
St. Peters Canal (from Atlantic to Bras d'or Lake, C.B.)	71,514

All the above mentioned canals are owned and controlled by the Dominion Government, which had spent on their construction and enlargement to the end of 1913 the sum of $124,652,119.

RAILROADS.

Until the advent of steam railways, the growth of commerce made but slow progress, and did not extend for any great distance from the shores of the then existing water routes. The first use made of the newly found means of transportation was to connect up the waterways over spaces where canals could not very well be built and where traffic already existed. Hence the first railway in Canada was built between La Prairie, on the South shore of the St. Lawrence, opposite Montreal, and St. John, on the Richelieu River. At that time, this short piece of overland route, namely from La Prairie to St. John, formed part of the well beaten path between Montreal and New York. Up to that time, goods and passengers had been carried over this part of the route by wagons and packhorses. The La Prairie-St. John Railroad was opened in 1837. Within a few years from this date, namely, in 1853, when the Great Western Railway was opened from Niagara to Hamilton, London and Windsor, the railroad began to extend back into the interior of the country, and from that date up to the present time the railroad sysem of Canada has continued to spread out, adding hundreds of miles to its length every year, and opening up for settlement and development, new areas. The total railway mileage in operation at the end of 1914 was 30,794 miles.

The railways of Canada have been built very largely by federal, provincial and municipal assistance, given in one form and another. Up to 1913 the aggregate of this assistance was as follows:—

Grants of Land, acres	56,041,288
Guarantees of interest on Loans, to the amount of	$274,960,374
Cash Subsidies, Loans, etc.	$217,830,153

In addition, the Dominion Government has built and owns a considerable railway mileage on its own account. The total expenditure on government railways to March 31st, 1913, was $301,968,778.

The total number of employees in the service of the steam railways in 1913 was 178,652. The number of passengers carried in the year 1914 was 46,230,705. The freight hauled in the same year was as follows:—

	Tons.
Products of the farm	21,714,980
Products of the Mines	38,260,170
(Of which 19,059,335 was coal and coke.)	
Forest Products	16,012,097
Manufactures	16,834,126
Merchandise	5,113,603
Miscellaneous	3,397,697

An important and rapidly increasing factor in commerce, particularly in urban and inter-urban traffic, is the electric railway, which at the end of 1914 had a total mileage in Canada of 1,560 miles. The aggregate number of passengers carried in the same year was 614,709,819, and in the same time the freight hauled amounted to 1,845,923 tons.

THE COMMON ROAD OR HIGHWAY.

In these days of highly developed means of conveying goods, it is almost unbelievable, but nevertheless a fact, that less than 200 years ago the only means in general use for transporting goods over land was the pack-horse, which moved slowly under its load along narrow paths or trails. The advent of the waggon necessitated the widening, strengthening and levelling of these paths, as well as the building of bridges over rivers and streams. For many years this work of road improvement advanced slowly, because it was done only when and where it was absolutely needed, and also because the people in the country, who used the roads most, received little or no co-operation from the people in the towns and cities. The first substantial highway development set in when the roads with the greatest amount of traffic began to be taken over by individuals, partnerships and companies who set up toll gates, and collected tolls from all traffic. With a part of this revenue the roads were kept in repair and often improved and rebuilt. In many parts of Canada these toll roads still exist, but they are rapidly being taken over and put under the control of provincial governments, county and township councils. This improvement may be largely credited to the spirit of co-operation on the part of towns people which the requirements of the automobiles created.

The common road or highway naturally falls into three divisions, namely:

First—The inter-urban roads, that is, those main travelled thoroughfares between towns and cities. These are generally maintained and controlled by the provinces.

Second—Rural market or county roads, largely used by the farmers for marketing purposes. These roads radiate from the centres of population out into the country districts, and serve the farmers living alongside of them as well as those who live on the sideroads or concessions that lead into them. These roads are generally owned and maintained by the county councils.

The Third, and by far the largest division, constituting over 85 per cent. of the public highways, are the side roads or concessions. These are invariably owned and maintained by the township councils. The customary way of keeping them in repair is by compelling each person whose property adjoins them to give a certain number of days' labor, called statute labor. But this labor is rapidly being converted into a tax which is paid into the township funds, and with which a gang of special road builders are maintained and provided with crushers, rollers, scrapers, etc., especially adapted to road building. This is the most satisfactory and least expensive method of either building or repairing roads.

Touching upon the value of good roads to both consumers and producers, the Public Roads and Highways Commission of Ontario say in their report for 1914 in part as follows:—

''All classes of people are deeply interested in good roads, as everything they consume and wear comes from the land and must pass over some piece of highway. A distinguished statesman in the United States has substantially stated, 'You cannot increase the prosperity of the country as a whole without increasing its highway facilities.' Highly productive farms can never be made profitable adjoining poor roads, and the first agency towards increasing the prosperity of the farmer is to create the cheapest outlet for his products to the market. Canadian statistics for 1912 indicate that one dollar will carry a ton of the average freight by railway one hundred and thirty miles, and on water, five hundred and fifteen miles. The former is the average of high grade and low grade traffic, car lot and less than car lot, long haul and short haul, while the latter is relatively a limited number of commodities, moving in large bulk, on long water hauls. As to the cost of haulage per ton by horse-drawn vehicles, there is some general understanding that on very ordinary roads, four miles is the limit for one dollar. It can hardly be disputed that a team will haul three tons easier on a hard smooth road, than one ton on a bad road.

"But this is the twentieth century, and the motor is here to stay. It, however, requires good roads; on them the motor will make twenty miles with a reasonable load as quickly as a team can cover six miles on good roads, or say three miles on poor ones. The 'home market' of the farmer thereby may become enlarged to an extent he hardly realizes to-day. Give him a vehicle which can transport a load cheaply for twenty or thirty miles in the time now taken for ten, and you give him a choice of urban centres in which to do his marketing. Motors consequently will be a great factor in the development of the country, provided the roads are made suitable for them. The area of production of food stuffs will be increased, and the profits per acre increased to the farmers. In a very interesting investigation carried on by Clyde Lyndon King, Ph.D., for the Mayor of Philadelphia, in 1912, it was shown that the spread between what the farmer received for certain foodstuffs, and what the consumer paid, varied from sixty-seven per cent. to two hundred and sixty-five per cent.

"Of the $146,000,000 paid annually by the people of New York City for milk, eggs, onions, and potatoes, less than $50,000,000 was received by the men who raised these crops. For certain produce for which the eastern farmer last summer received $1.00, the Philadelphia consumer paid $2.35."

METHODS OF DISPATCH.

The great quantity of practically every class of commodity is carried in bulk or in packages as ordinary freight in one or other of the different ways already described. But in the case of perishable goods, such as fresh fruit, meat, fish, etc., fast freight is the most satisfactory method of dispatch. This, however, can only be employed between important centres where such a service is established. Outside of such places the only available means of dispatch is by express for large shipments, and by express or parcel post for small parcels.

The total mileage over which there was express service in Canada at the end of 1913, was as follows:—

By Routes Over—

Steam Railways	29,476
Steam Boats	2,743
Electric Lines	212
Steam Lines	126

The total mileage of stage routes in Canada on March 31st, 1914, was 21,541,963 miles.

MARKETS.

From the earliest days of the division of labor, particularly since industrial centres began to be formed by the grouping of manufacturing industries into towns and cities, the habit of people meeting to buy and sell, or exchanging their wares at a certain place known as the "Market Place" on certain days of the week, became a distinct feature of trade and commerce. In small towns this market amounted to nothing more than a place where the farmers from the adjoining country went to offer to the townsfolk their agricultural products. As the town grew into a city and the trade became larger, the market place gradually assumed certain well defined sections. Farmers with hay to offer would be found in one section, those with wood in another section, those with general produce in another, etc. As the city grew into a metropolitan centre, each of these divisions became a distinct market in itself, often situated in different parts of the city from the others. The best example of a metropolitant market centre is London, England, the greatest market centre of the world for almost any commodity that can be marketed. According to the census returns of 1911, London had a population at that time of 7,251,368. For commodities, such as the produce that is generally offered in a single market place in an ordinary town, London has no less than sixteen distinct markets situated in different parts. The more important of these London markets are as follows, Smithfield, in which only meat and fowl are handled; Billingsgate, the great market for all kinds of fish, fresh and cured; Covent Garden, where vegetables, flowers, and fruits are bought and sold, the Metropolitan Cattle Market, and Smithfield Hay Market.

The great quantity of produce and other goods disposed of on these produce markets throughout the world are sold directly from the farmers' waggons, just as they are on the market places of so many Canadian towns and cities. In many market places throughout Canada, as elsewhere, a section of the market is covered or closed in, where goods may be transferred from the waggons and sold from stalls. Country produce, however, is not always sold to the townspeople direct by the farmer. Frequently, particularly in the larger cities, the goods are bought from the farmers by middlemen, known as hucksters or truckers, who dispose of them from their carts, or from stalls on the regular market place, or peddle them from door to door though the cities. Great quantities of the most perishable goods, such as fresh fruits, fish and vegetables, are supplied to the consumers by street hawkers. An excellent example of the value of this business is the case of fresh herrings, of which such large quantities are consumed in Great Britain. Herrings are the cheapest of all foods, and when fresh are the most perishable. But, through the street mongers, who get a supply daily and peddle them through the streets in the early morning, the poor people are able to get supplies of this excellent fish in good condition, and at very low prices. When sold from the stores, fresh herrings cost from 8 to 10 cents per pound, on account of the loss in handling. But the street monger ordinarily sells them at a price which works out at 4 cents per pound. Berries, bananas, plums and other small fruit, as well as fresh young vegetables are always handled with greater economy to the consumer by street hawkers.

The markets for many commodities have undergone great changes during recent years.

The **Wood Market,** which used to be so prominent, has almost entirely disappeared, on account of the decreasing supply, and the increasing consumption of coal, gas and electric power for heating and cooking purposes.

The **Hay Market** in most small towns still exists for such producers as have a few loads to sell. Farmers who have a quantity seldom sell it loose, except for local consumption. They press it into bales by a hay presser, and ship it in car loads to dealers in large centres, or directly to large consumers. Hay presses are also maintained in the vicinity of hay markets, by dealers who buy up any loads of loose hay offering, and ship and export in pressed bales. Hay is sold by the ton, about 10 bales to the ton, (short, or American ton, 2,000 lbs., long, or English ton, 2,240 lbs., or metric or French ton, 2,204 lbs.)

The **Meat Market.** Not many years ago it was the custom in most agricultural districts for the farmers to kill, dress and take to market their own cattle, hogs, sheep and fowl. Much killing and dressing of animals was also done by the village butcher, who sold his meat in the nearest market in the same way as the farmers did. Any surplus after the consumers in the town and vicinity were supplied was shipped to the larger centres, generally as salted or cured, because after being exposed during the time required for marketing it would not keep otherwise. But this custom has almost completely passed away, and at present cattle, hogs, sheep and fowls are slaughtered and dressed in large abattoirs and packing houses, where the meat is at once put into refrigerating rooms, and where many of the by-products, which the farmer or local butcher was in the habit of discarding, are retained, treated, and sold as foodstuffs, oils and greases for soap factories, and fertilizers. From the refrigerating rooms of abattoirs and packing houses the meat is carried in refrigerator cars and boats to the local butcher shops of the country, or exported to the great meat markets of the world. In order to supply these great slaughtering houses with animals, buyers go through the country and purchase them from the farmers at a price per hundred, live weight. Sometimes abattoirs send out their own buyers, but more often the animals are bought by jobbers or drovers, who buy on their own account, and sell in the central **Live Stock Markets.** Many stock raisers and stall feeders (that is, those who stall-feed for the market) who have a sufficient number of animals for sale, ship directly to the stock market themselves.

The **Live Stock Markets** have thus become much more important than they were a few years ago. The greatest live stock markets of the world are those at Chicago. Other cattle, sheep and hog raising countries, such as Argentine Republic and Australia, have also important markets of this kind. The principal live stock markets of Canada are those of Montreal, Toronto and Winnipeg.

The receipts of live stock at these three Canadian markets for the years 1910-1914 inclusive, was as follows:—

		Toronto.			
Cattle	319,685	293,328	273,247	365,936	249,351
Sheep	190,542	227,903	200,216	206,044	178,291
Hogs	212,787	255,102	327,501	346,956	416,257
Calves	35,778	35,133	44,137	53,707	44,419
		Montreal.			
Cattle	160,981	155,547	136,715	182,699	129,060
Sheep	98,023	117,779	142,342	143,341	124,555
Hogs	133,603	189,370	200,888	190.084	169,533
Calves	72,364	72,930	84,755	108,832	80,275
		Winnipeg.			
Cattle	190,517	102,726	101,044	96,478	117,467
Sheep	30,775	43,614	64,041	54,585	42,426
Hogs	91,626	85,157	110,871	163,303	474,685
Calves	....	....	....	....	....

The Three Markets.

Cattle	671,183	551,601	511,006	645,113	485,878
Sheep	319,340	389,296	406,599	403,970	345,272
Hogs	438,016	529,629	639,170	700,343	1,060,475
Calves	108,142	108,063	128,892	162,539	124,694

Fish Markets are much the same as they have always been, for the reason that the fishermen, that is, those who actually catch the fish, are generally situated so far from the consuming centres that they cannot very well carry their own product to markets for sale directly to the consumers. Hence there are, and have always been, two kinds of Fish markets, viz., those at the ports nearest the fishing grounds, where the fisherman sells his fish to the wholesale dealers and jobbers, and the markets in the consuming centres where the merchant sells to the consumer or street monger, who, in turn peddles them through the streets. In the smaller markets, such as those in this country, either at the fishing ports or inland towns and cities, it is purely a case of barter as between the buyer and seller. But in the larger markets, such as those at Billingsgate, much of the fish offering is sold by auction to the highest bidder.

Grain and Cotton Markets are considerably different from any other class of markets, in that this class of commodity is generally purchased by the large consuming mills several months in advance of the time they will require delivery. Hence quotations on these markets are for ''spot,'' that is, immediate delivery, or for ''futures,'' that is, delivery at two or three different future dates.

The custom which has created these great markets in futures is one which the most non-speculative purchasers of these commodities follow, and which is absolutely necessary to protection against heavy losses. The miller who knows in advance that he will require, say, 100,000 bushels of wheat three months hence, places an order with a grain merchant for this amount at a fixed price agreed upon between the two. The merchant knows that if the price of wheat goes up he will be the loser when the time comes for him to make delivery to the miller, and in order to insure himself against loss he buys from those, who are willing to gamble that the price will not go up, an equal quantity of wheat at the prevailing price of futures, which is generally the same as that at which he sold. This is really the same class of insurance against loss as is dealt in at Lloyds, where loss against shipping is insured. Cotton purchasers for future delivery are made in the same way. This insurance of future prices is the factor that forms the speculative market in grain, cotton, and other futures. The shrewd speculator is always guided by the probable available supply at the time of delivery. Because, if the aggregate amount sold is greater than the available supply, he will be caught on the short side of the market, and may have to pay heavily in order to settle. Great Britain, being the greatest consumer of the world's surplus supplies of grains and cottons, is the largest factor in determining the price at the time of delivery. Hence the grain and cotton markets of Liverpool and London are the world's greatest markets from that point of view. But they are not the markets in which the greatest number of speculative sales are made. Such markets are those of Chicago and New York. From both points of view the grain markets at Montreal, Toronto and Winnipeg transact a large volume of business. These markets, particularly where futures are dealt in, are often called Exchanges, such as the **Grain Exchange, Cotton Exchange,** etc.

Metal Markets are generally situated in centres where there are large smelters and refiners, or in the large consuming centres. Great Britain, being a considerable producer of refined metals, as well as one of the largest consumers, possesses the markets which set the prices of most metals for the world. The prices established by the London metal markets are generally regarded as the ruling prices. The principal metal markets are generally open on certain days of the week, month, or even the year. For some of the lesser minerals, such as mica, a public market is held only twice or three times a year, whereas other metal markets are held from one to three and five times a week. Great quantities of all classes of materials, of course, are sold by private sale between the seller and purchaser without ever reaching any market, but as a general rule the prevailing prices are determined at the central markets.

In London and elsewhere there are public auctions of certain commodities at certain salerooms. The goods to be sold are generally advertised for some time previous to the sale. ''The Economist'' and other periodicals of London carry such advertisements. The principal sale rooms in London for this class of auctions are: The London Commercial, The Baltic, and College Hill Public. Each sale room has its particular line of articles.

Exchange.—This is a name by which some of the greatest markets in Great Britain and other parts of Europe are known. One of the finest and best regulated, and on which the greatest volume of business is done is that at Manchester. On these markets there are no displays of goods, other than small samples. Every business firm, large and small, whether manufacturer, merchant, shipper, etc., in the vicinity of Manchester, holds a membership on the Manchester Exchange, and all classes of business, whether it is buying and selling of commodities or services, is done here on market days, which are generally about three times a week. The Liverpool Exchange is another famous market.

Fairs and Shows in Canada and the United States are generally not much more than exhibitions. But Fairs and Shows in Great Britain and other parts of Europe, are held largely for the purpose of buying and selling. They are similar to the Fat Stock Show held annually at Guelph, Ont. The term is also applied to places such as Petticoat Lane in London, where street vendors are always in great numbers, day or night, including Sundays, for the exhibition and sale of their wares, which include every conceivable commodity that can be sold, from a push-cart or stall. The business done in Petticoat Lane is very similar to that transacted in the Bowery, New York.

Money Markets.—This is a sort of general term applied to the money situation of any country or of the world. It is true there are certain well established centres such as Lombard street, London, and Wall Street, New York, where great financial houses are located. But even in these centres there is no open market place.

Stock Exchange—This is described in the chapter on Finance, Chap. III.

WEIGHTS AND MEASURES.

Market Quotations are ordinarily so many units of value for so many units of weight or measure. Both these units have grown out of the early customs of the countries, and as world commerce is not yet old enough to establish a set of international units, there are still as many units of value and of weights and measures as there are peoples. One of the most awkward set of standards is that supplied by Great Britain in her "Pounds, Shillings and Pence," and her very awkward units of weights and measures. But Great Britain is the world's greatest commercial nation, and more gold is being annually coined into British units and more goods are being handled by the English standard of weights and measures than by the standards of any other country. There are still enough original terms preserved in the nomenclature of British standards to indicate that the names were originally chosen from the objects most readily at hand. For instance, the "Grain," which is the estimated average weight of a seed of well ripened wheat; the "Hand," 4 inches; the "span," 9 inches; the "Foot" 12 inches; the "Ell" (from the elbow to the forearm), the "Fathom" (the bosom), and the "Pace," of which 1,000, or mille, was the derivation and original spelling of our "mile."

The only system other than the English which has any considerable application in commerce is the decimal or metric system, sometimes known as the French system. It is founded upon the assumed length of a Meridian Line from the Pole to the Equator, the 10,000,000th part of which is taken as the unit of length and called a "metre." From this are derived the units of Weight and Capacity. The metric system is a very simple standard, and has already been adopted for most scientific determinations, and is in general use in many of the Latin countries. It is the only serious rival the English system has.

Imperial Weights and Measures.—The "Grain" is the most universally accepted standard. It is the same in Avoirdupois, Troy and Apothecaries, and the same in England, France, United States, Holland, and most other countries. There are 7,000 grains in a standard pound Avoirdupois, and 5,760 grains in a standard pound Troy, so that the pound Avoirdupois is to the pound Troy as 175 is to 144.

Avoirdupois' Weight.

Avoirdupois weight is used in almost all commercial transactions.

16 drachms or 437.5 grains	1 oz.
16 ounces, or 7,000 grains	1 lb.
14 pounds	1 stone.
28 pounds	1 quarter.
4 quarters, or 112 pounds	1 cwt.

The standard used in Canada is the same as the above table, with the exception that the American cwt., namely, 100 pounds, and the American ton, namely 2,000 pounds, is more generally used in commercial transactions.

Troy Weight.

Troy weight is used in the weighing of gold, silver, platinum, jewels and such liquors as are sold by weight. A standard that is very often used in jewellery is the "carat." For instance, we speak of standard gold coin as being composed of 22 carats of fine gold and 2 carats of alloy. The value of a "carat" varies in different countries. In France it contains 3.18 grains, in Holland 3.0 grains, in United States 3.2 grains, and in the Unted Kngdom 3.19 grains. For ordinary purposes in the United Kingdom the ounce Troy equals 150 diamond carats.

24 grains	1 dwt.
20 dwt. or 480 grains	1 oz.
12 ounces, or 5,760 grains	1 lb.

Apothecaries Weight.

20 grains	1 scruple.
3 scruples or 60 grains	1 drachm.
8 drachms or 480 grains	1 ounce.
12 ounces, or 5,760 grains	1 lb. (Troy.)

Dry Measure.

2 pints	1 quart.
2 quarts	1 pottle.
2 pottles, or 4 quarts	1 gallon.
2 gallons	1 peck.
4 pecks	1 bushel.
2 bushels	1 strike.
4 bushels	1 coomb.
8 bushels	1 quarter.
36 bushels	1 chaldron.
5 quarters	1 wey or load.
2 weys	1 last.

Wine Measure.

4 gills	1 pint.
2 pints	1 quart.
4 quarts	1 gallon.
2 gallons	1 flagon.
10 gallons	1 anker.
42 gallons	1 tierce.
63 gallons	1 hogshead.
84 gallons	1 puncheon.
126 gallons	1 pipe.
252 gallons	1 tun.

A tun of wine equals 20 cwt. Avoirdupois.

Sizes of Different Casks.

Marsala Pipe	108	gallons.
Marsala Hoshead	45.5	gallons.
Brandy Pipe	114	gallons.
Brandy Hogshead	57.5	gallons.
Port Pipe	113	gallons.
Port Hogshead	56.5	gallons.
Sherry Pipe	108	gallons.
Sherry Hogshead	54.5	gallons.
Rum Puncheon	91	gallons.

Long or Lineal Measure.

12	parts	1 inch.
12	inches	1 foot.
3	feet	1 yard.
5½	yards	1 rod, pole, or perch.
220	yards	1 furlong.
8	furlongs	1 statute mile.
3	miles	1 league.

There are 1,760 yards, or 5,280 feet in a statute mile. The old Scottish mile was 5,920 feet, and the old Irish mile was 6,720 feet.

The Long Measure that is ordinarily used for surveying purposes is as follows:

7.92 inches	1 link.
100 links, or 66 feet	1 chain.
80 chains	1 mile.

The Long Measure that is ordinarily used for nautical and geographical purposes is as follows:—

6 feet	1 fathom.
1000 fathoms, or 6,000 feet	1 knot. (Geographical mile.
60 knots	1 degree.

The Lineal Measure that used to be much in vogue for measuring cloth, but which is now seldom used, is as follows:—

2¼	inches	1 nail.
4	nails	1 quarter.
4	quarters	1 yard.
5	quarters	1 ell (English).

A Flemish ell contains 3 quarters, that is ¾ of a yard.

A French ell contains 6 quarters, or 1½ yards.

Square Measure.

144 parts	1 square inch.
144 sq. inches	1 square foot.
9 sq. feet	1 square yard.
30¼ sq. yards	1 sq. rod or pole.
16 sq. poles	1 square chain.
10 square chains	1 acre.
640 acres	1 square mile.

There are 4,840 square yards, or 43,560 square feet in an English acre. In a French acre or "Arpent," which is frequently used throughout the Province of Quebec, there are 36,801 square feet.

Cubic Measure.

1728 cubic inches	1 cubic foot.
27 cubic feet	1 cubic yard.
35 cubic feet	1 ton of ship's displacement.

A cord of wood (standard), is 8 feet long, 4 feet wide, and 4 feet high, and contains 128 cubic feet. A cubic foot of water is equal to about 6¼ gallons, and weighs 62.321 pounds.

Angular Measure.

60 seconds	1 minute.
60 minutes	1 degree.
90 degrees	1 quadrant.
4 quadrants or 360 degrees	1 circle or circumference.

The earth rotates at a velocity of 15 degrees an hour.

Measure of Time.

60 seconds	1 minute.
60 minutes	1 hour.
24 hours	1 day. (ordinary or solar day.)
7 days	1 week.
28, 29, 30 or 31 days	1 cal. month.
12 calendar months	1 year.
365 days	1 common year.
366 days	1 leap year.

The ordinary or solar day is one complete alternation of Light and Darkness, and represents slightly more than a complete revolution (365.242 solar days in a year), of the earth on its axis. A Sidereal day, on the other hand, is the time occupied in one revolution of the earth on its axis. There are 366 of these sidereal days in one year, each divided into 23 hours 56 minutes and 4 seconds.

In 400 years there are 97 leap years and 303 common years; leap year being omitted every 100th year, but not omitted every 400th year (1900 was not a leap year).

The word "Calendar" is derived from Calend or Kalend, which, in the Roman chronology denoted the first day of every month. The calends were reckoned backwards, thus the first of May was called the Calend of May. The 30th or last day of April was called the day before the Calends of May. The 29th day of April was called the second before—ante diem secundum, etc. of the Calends of May, and so on to the 13th, when the "ides" commenced, which were also reckoned backwards to the 5th, when the "nones" began, and were numbered backwards to the first, which then took the name of the calends.

Sundry Measurements.

There are a number of special weights and measurements that are still used in the quotation and marketing of various commodities, and which the merchant requires to know when buying in foreign markets, or when reducing the market quotations of these commodities in foreign markets to the quotations given in his own market.

Cheese and Butter.

A firkin of butter	56 lbs.
A tub of butter	84 lbs.
A barrel of butter	224 lbs.
A box of cheese (Canada—various weights) in the neighborhood of	80 lbs.
A stone of cheese	16 lbs.
A roll of butter	24 lbs.

Cotton.

A bale (New Orleans)	400 to 500 lbs.
A bale (Carolina)	300 to 310 lbs.
A bale (India)	320 to 360 lbs.
A bale (Egypt)	180 to 283 lbs.
A bale (Egypt)	160 to 200 lbs.

Glass.

1 stone	5 lbs.
1 seam	24 lbs.

Grain and Grain Products.

The Imperial Grain Gallon contains	282	cubic inches.
The Imperial Wine Gallon contains	231	cubic inches.
The Imperial Grain Bushel (8 gallons), contains	2,256	cubic inches.
The U. S. Grain Bushel contains	2,150.42	cubic inches.

Grain is generally sold by weight, but in reckoning the number of bushels the weight taken for a bushel differs in different countries. In the British markets the weight of a bushel of grain is reckoned as follows:—

English Wheat, 63 lbs. to a bushel; Foreign Wheat, 62 lbs.
English Barley, 52 to 56 lbs. to a bushel; French Barley, 52½ lbs.
Mediterranean Barley, 50 lbs. to a bushel.
English Oats, 40 to 42 lbs. to a bushel; Foreign Oats, 38 to 40 lbs.
Rye and Corn, 60 lbs. to a bushel.
Buckwheat, 52 lbs. to a bushel.

In Australia and many other countries the weight of a bushel of wheat for marketing purposes differs from year to year, and is determined by a Commission, who ascertain the weight of a bushel of "fair average quality" of the year's crop. This weight is known as the f.a.q. standard. The weight of a bushel or 2,256 cubic inches of any kind of grain depends upon the quality of the grain.

The greater part of Canadian grain which comes into the market is graded by the Canadian Grain Commission. The marketing of grain, particularly wheat, is of so much importance to the Canadian people, we give at the close of this Chapter the full report of the Commission on "The Methods of Trading" which appeared in their last report.

Flour and meal in the English market are sold by the Bag or Sack, the Ball and the Stone.

1 Stone	14 lbs.
1 Ball	140 lbs.
1 Sack	280 lbs.

In Canada, flour is sold by the bag of 100 lbs., (98 lbs. of flour and 2 lbs. of bag), or the barrel of 196 lbs. of flour. It is also sold by the quarter bag of 25 lbs. (24 lbs. of flour and 1 pound of bag).

Fish.

A Stone	14 lbs.
A Box	90 "
A Quintel	112 "
A Code	500 "
A Mease	600 "
A Tun (fish oil)	252 gals.
A Code (sprats)	1,000 fish.
A Barrel (Anchovies)	30 lbs.
A Barrel (Herrings)	26¾ gals.
A Crain (Herrings)	37½ "

Hides.

A Dicker	10 skins.
A Last	20 dickers.

Hops.

A Pocket	168 to 224 lbs.
A Bag	2½ cwt. average.

Timber.

A Plank	11 inches wide.
A Deal	9 inches wide.
A Batten	7 inches wide.

Wool.

A Clove, cl.	7	lbs.
A Stone, st.	2	cloves.
A Tod, td.	2	stones.
A Wey, wy.	6½	tods.
A Sack, sk.	2	weys.
A Last, la.	12	sacks.
1 Pack, pk.	240	lbs.

Yarn.

The standard for measuring yarn is known as a **count.** For instance, No. 16 cotton means 16 hanks, each 840 yards long, weighing one pound. Germany and other continental countries employ this system. In France the hank is 1,000 metres long and the unit of weight is ½ kilogram. For woollen yarn there is great diversity in counts. In Great Britain it is numbered like cotton, but the hank is only 560 yards in length. In Germany worsted yarn is treated just like cotton. In France the length of a hank is usually 710 or 714 metres. The counts of flax yarn are also various, but the English system with some modification is most general, and in this the unit of length is the cut of 300 yards:

Cotton and Silk 120 Yards = 1 Skein
7 Skeins = 1 Hank
18 Hanks = 1 Spindle
Linen..........300 Yards = 1 Cut
2 Cuts = 1 Hear
6 Hears = 1 Hasp
4 Hasps = 1 Spindle
Worsted.........10 Yards = 1 Warp
7 Warps = 1 Hank

THE METRIC SYSTEM.

The Metre, which is the base of all the other units of the Metric System, whether of Length, Surface, Capacity, etc., is the 10,000,000th part of the distance from the Pole to the Equator. It is equal to 39.37079 inches.

The Stere, or cubic metre, is the unit of Cubic Measure.

The Gramme, which is the unit of weight, is the weight of a cubic centimetre of pure water at 39 deg. Farenheit.

The Litre, which is the unit of Capacity, is the capacity of a cubic decimetre, (= 1000 grammes), of water at 39 deg. Farenheit.

The Are, which is the unit of Square Measure, is a Square Decametre, (= 100 square metres).

All Measures in the Metric System rise by tens, hundreds and thousands.

The Multiples of the Unit of a measure have Greek prefixes:—

Deca	10
Hecto	100
Kilo	1,000
Myria	10,000

The Sub-Multiples of the Unit of a measure have Latin prefixes:—

Deci	10
Centi	100
Milli	1,000

Measures of Length.

(Unit, the Metre).

				British Equivalent.	
10 Millimetres	= 1 Centimetre	=	0.3937079	inches.
10 Centimetres	= 1 Decimetre	=	3.937079	"
10 Decimetres	= 1 Metre	=	39.37079	"
10 Metres	= 1 Decametre	=	393.7079	"
10 Decametres	= 1 Hectometre	=	3937.079	"
10 Hectometres	= 1 Kilometre	=	3280.9	ft.
10 Kilometres	= 1 Myriametre	=	6.21	miles.

Square Measure.

(Unit, the Are).

100 Square Millimetres = 1 Square Centimetre.
100 Square Centimetres = 1 Square Decimetre.
100 Square Decimetres = 1 Square Metre.
100 Square Metres = 1 Are, (or Square Decametre).
10 Ares (or Square Decametres) = 1 Square Hectometre.
10 Square Hectometres = 1 Square Kilometre.

But the table more generally used is as follows:—

			British Equivalent. Square Yards.
10 Centiares	= 1 Deciare	=	11.96033
10 Deciares	= 1 Are	=	119.6033
10 Ares	= 1 Decare		1196.033
10 Decares	= 1 Hectare		11960.33

Cubic Measure.

(Unit, the Stere or Cubic Metre).

1,000 Cubic Millimetres = 1 Cubic Centimetre.
1,000 Cubic Centimetres = 1 Cubic Decimetre.
1,000 Cubic Decimetres = 1 Cubic Metre or Stere.

But the table more generally used is as follows:—

			British Equivalent.
10 Decisteres	= 1 Stere	=	35.317 Cubic Feet.
10 Steres	= 1 Decastere	=	353.17 Cubic Feet.

Measures of Capacity.

(Unit, the Litre=1,000 Cubic Centimetres).

			British Equivalent.
10 Centilitres	= 1 Decilitre	=	.17607 pts.
10 Decilitres	= 1 Litre	=	1.76077 pts.
10 Litres	= 1 Decalitre	=	8 gals. 0 qts. 1.6077 pts.
10 Decalitres	= 1 Hectolitre	=	22 gals. 0 qts. 0.077 pts.
10 Hectolitres	= 1 Kilolitre	=	220 gals. 0 qts. 0.77 pts.
10 Kilolitres	= 1 Myrialitre	=	2,200 gals. 3 qts. 1.7 pts.

Measures of Weight.

(Unit, the Gramme).

			British Equivalent.	
10 Milligrammes	= 1 Centigramme	=	.0056438	Drams.
10 Centigrammes	= 1 Decigramme	=	.056438	”
10 Decigrammes	= 1 Gramme	=	.56438	”
10 Grammes	= 1 Decagramme	=	5.6438	”
10 Decagrammes	= 1 Hectigramme	=	56.438	”
10 Hectogrammes	= 1 Kilogramme	=	2.2046	Lbs.
10 Kilogrammes	= 1 Myriagramme	=	22.046	”
10 Myriagrammes	= 1 Quintal		220.46	”
10 Quintals	= 1 Millier		2204.6	”

A Cubic Decimetre or a Litre weighs 1 Kilogram or 1,000 Grammes.

The Millier, called Tonneau de Mer, is the Ton of Shipping.

The Kilogramme is, in practice, found an inconvenient weight for small purchases, and the Half Kilo, which is rather more than the English Pound Avoirdupois, is used. Similarly nearly all heavy goods are sold by the Tonneau, slightly less than our Ton.

The Centner of 50 Kilos., equal to 110¼ lbs., and nearly equal to the English cwt., is also used.

APPENDIX

(Taken from the Report of Department of Trade and Commerce for 1914)

METHODS OF TRADING IN WHEAT.

1.—Reputation of Canadian Wheat.

Not much is to be gained by comparing spring wheat with winter wheat, hard wheat with soft, or white with red, with the object of showing that any one particular wheat is the best in the world. Amongst hard red spring wheats, however, the grain from the Canadian west is at all events amongst the first. It is not excelled by either the hard red spring varieties of Russia or Argentine Republic. Its standing in the British market is assured and its reputation has been enhanced by the crop of 1913.

2.—Price of the Wheat of the 1913 Crop.

The price offered for Canadian wheat of the crop of 1913 was very adversely affected by the enormous quantity pressed upon the market during the months immediately following the harvest. An inquirer cannot help raising the question whether Canada has not lost heavily by her method of selling grain. Crop estimates of an optimistic character, the publication of the large amounts daily inspected, the advertising of the financial difficulties of the moment, the method of trading which is almost that of public auctioning, and the concentration of all the energies of the country upon the rapid marketing of the crop, are conditions that must tend to "bear" the market. What prices would a merchant obtain for his stock if he (1) proclaimed that his financial position compelled him to sell immediately (2) advertised that he had an enormous amount of it on hand (3) and put his stock up to public auction? Yet Canada acted almost that way in regard to the crop of 1913.

The Russian Government made provision for enabling the Russian grain to be held back while the torrent from Canada poured into the market. It is probable that this action tended towards preventing a still lower price being offered for Canadian grain. Whether this was so or not, it would be instructive to ascertain how the experiment will work out in regard to the price of Russian wheat. A glance at the grain calendar of the United Kingdom is enough to suggest that it would be difficult for Russia to find a period in which the held-back wheat would not find competition in the British markets.

3.—Trading by Grade and Trading by Sample.

Domestic Trade.—In only two of the great grain-growing countries of the world is grain traded in by certificate, namely, the United States and Canada. In the other grain-producing countries of the world, grain is bought and sold on sample. This holds good of the United Kingdom, all European countries, Australia, South Africa, Egypt, the Argentine Republic, and the Pacific States of the United States.

In the United States, grain is bought and sold by sample, as well as by certificate. In Canada east-grown grain is bought and sold on sample, and west-grown grain is bought and sold on certificate; and western Canada is the only part of the world in which sample trading is made impossible by legislation.

International Trade.—Grain imported into the United Kingdom from European countries, Australia, Africa, South America and the Pacific Coast of the United States is bought on standard sample and London arbitration. At the beginning of the harvest, standard samples of the new grain are made up, and upon these samples the grain is sold in the foreign market. In some cases the standard samples are made up by the exporting countries, in others they are made up by the London Corn Trade Association. In all these cases any question as to whether the cargo delivered is up to the standard sample is decided by the London Corn Trade Association.

The London Corn Trade Association arbitrates not only for the trade in the United Kingdom, but for that in European countries and for Argentine corn imported in the United States also. The amount of arbitration done in London is therefore large. The arbitrators are grain merchants of recognized ability and integrity. There is a scale of fees for arbitrations and appeals. A percentage of the fees goes to the Corn Trade Association, and the remainder is divided up among those who act. A large amount of money is annually disbursed for arbitrations and appeals.

In some cases the two arbitrators selected by the two parties to the contract agree, in others they differ, and when this happens, a third arbitrator is chosen who is virtually an umpire. There is a Board of Appeals, and if either party to the contract is dissatisfied with the arbitration, there is an appeal from the verdict to the Board of Appeals.

In all the important grain markets of the United Kingdom there are facilities for sample trading. In London these facilities are in Mark Lane, where samples from every grain exporting country in the world, including Canada and the United States, are set out, and purchases are made on the samples independent of the grading. In Mark Lane a visitor can see samples of Canadian graded grain, and can see millers picking out the lots that suit them. Similar facilities are provided in Bristol, Liverpool, Glasgow and elsewhere.

It is only grain from Canada and the United States east of the Rockies that is bought upon certificate, and even Canadian and United States grain, though bought by dealers on certificate, is sold by sample in the sample markets of Britain to some extent.

When a miller, therefore, argues, as some of the British millers do, that trading on certificate is exceptional, while trading on sample is practically universal in grain-growing countries, there is a considerable body of fact in the argument. And when he proceeds to argue, as he frequently does, that trading on certificate is artificial, that involves difficulties both in defining the grades and in securing efficient inspection, and that it cuts off from him the possibility of redress in case a lot delivered upon certificate is not up to grade, since the certificate is final, and since the practical difficulties of appealing to the survey boards of the countries exporting the lot render it useless or unprofitable for him to make such an appeal, there is a good deal to be said from his point of view. At all events, some of the British millers, and some of the British dealers in grain, advocate purchase by sample rather than by grades, and believe that seller and buyer would obtain a fair and honest verdict from the London arbitrators and the Appeal Board of the London Corn Trade Association.

4.—Canadian and American Certificates.

It is sometimes said that the Canadian certificates are the best in the world. While not insensible to the compliment involved, candour necessitates pointing out that the world referred to only means Canada and the United States. Candour no less necessitates the observation that no comparison of Canadian and United States certificates is just which does not state that while there are, properly speaking, Canadian certifiates, there are no United States certificates. The anadian inspection system is federal; in the nited States inspection is the right of the seprate states or of the Boards of Trade or of the roduce Exchanges. There is, therefore, in the nited States a lack of uniformity in the stanards, and of unity in the administration, which auses trouble, a lack not found in the federal ystem of Canada. It should be further observed hat the reputation of the different inspection ertificates of the United States varies considerbly. Those of Illinois and Minnesota (Chicago nd Duluth stand highest, apparently those of he Gulf ports lowest and the others are arranged a hierarchy of repute between.

The Illinois and Minnesota certificates appear o stand just as high as the Canadian certificates. either of them, however, stands higher than hose of Canada, and the confidence of the tradrs of the United Kingdom in the Canadian inpection certificates is an asset of value. When he trading is done on certificate, and when the uyer has little confidence in the certificate and et has no redress, he naturally protects himself n the price offered. Trading by standard sample nd London arbitration would appear to be in the nterest of the producer, where confidence in the ertificate is lacking.

It is asserted by some that Board of Trade and ocal inspection systems tend to the belief that a igorous inspection would injure port or local usiness. This is one of the reasons given of the lleged laxity in some of the port inspections of he United States, and it is also occasionally given with respect to the Montreal Board of Trade nspections of American corn and barley. In iew of the extent of sample trading, both domstic and international, it would be absurd to say hat either British millers or British buyers of rain are opposed to sample trading either in the omestic or international field. So far as Canaian grain is concerned, some of them, including oth millers and dealers in grain, prefer sample rading to trading on certificate; others, perhaps he majority, prefer trading upon certificate. As o whether Canada should establish sample marets for western grain in her own domestic marets, this is a matter of domestic rather than inernational concern. The British buyers and millrs would only be affected if sample trading in anada lowered the standards of the grades, or ed to a lax inspection, or resulted in lowering he grades of the lots of grain delivered in Great ritain upon certificate. So long as the grain deivered in the United Kingdom from Canada is up o the grade of the certificate, so long British uyers and millers are not affected.

It is obvious that no country exports grain unless it produces a surplus over and above what it an profitably mill for its own or export conumption. In this respect Canada occupies a poition similar to that of all other grain exporting ountries, and the domestic price of grain in very exporting country is closely related to the rice obtained for the exported surplus. Austraia, the Argentine Republic, Russia, and several ther exporting countries are, in the matter of rices, as profoundly affected by the price obained for their exported surplus as Canada, yet he countries named have no grading system, and lo their trading, both dometsic and international, pon sample only. If trading by certificate is an ndispensible method of obtaining the highest rice in the international market, such countries must be losing heavily. It would be difficult to lemonstrate, however, that the countries that rade on sample in both domestic and internaional markets, really suffer so far as the price btained for their product is concerned, in comparison with Canada. Australia obtains a good price for her wheat without any such grading system. Whether Australian wheat would command a higher price in the United Kingdom if sold on certificate would be as difficult to show, as it would be to demonstrate that Canadian grain would obtain a smaller price if sold upon sample. Such questions as these are very complex and do not admit of any short and decisive answer. The world factors that enter into the price of grain are very numerous, very difficult to analyse, and so complicated that short and easy answers to them are only possible to those confident minds that ignore economic considerations. The most experienced grain men and millers of the United Kingdom differ on the relative merits of trading by grade and trading by sample. Much can be said upon both sides. As stated, some of the grain dealers believe in trading on sample and London arbitration, others in trading by grade, and the same trite observation holds good of the millers. It should not be forgotten that few, if any, of the British millers buy direct from the exporting countries. Most of them buy from grain dealers in the United Kingdom. The latter, in turn, buy from the exporting countries. Some of the grain dealers regard trading by certificate as simpler and less troublesome than trading by sample. They buy paper and when they sell paper, if their client is dissatisfied with the grain delivered, he must accept the certificate. Grain dealers, therefore, might be expected to prefer trading by certificate and, on the other hand, it is not unnatural that millers sometimes express a preference for trading by sample, since under such a system they could appeal to arbitration in case they were dissatisfied with the grain delivered.

5.—Prices of Australian and Canadian Wheat.

Australian wheat sells at a higher price than the Canadian wheat in the British market. If an explanation of this fact is sought it can hardly be found in the method of trading. Australian wheat is sold upon sample, Canadian wheat upon Government certificate of grade. If the method of trading were a main factor in determining the price of wheat, the fact that Australian wheat is sold higher than Canadian wheat might demonstrate the superiority of trading by sample. But the method of trading is not among the important factors determining the price of grain, and the only inference permissible from the higher price of Australian wheat is that trading by sample need present no serious obstacle in the way of obtaining the market value of the product.

Nor does the higher price of Australian wheat demonstrate its superiority to Canadian wheat. As a matter of fact, the prices are determined by, amongst other things, the relative values of the different wheats for the purpose of the British blends, the need of the British and European millers for the different wheats, by the supplies available, and by the available supplies of competing wheats of similar qualities.

6.—Shipments of grain from Canadian ports as compared to shipments from United States ports.

In comparing Canadian and United States channels for Canadian grain, whether Canadian elevators and ports, as against United States elevators and ports, from the point of view of the British importer, a distinction must be drawn between Canadian and United States ocean ports in the matter of ocean tonnage. Whether it is due to the different volumes of trade of the two countries, or the different rates of marine insurance, there is no doubt that, in the matter of ocean tonnage, the United States ports have an advantage over those of Canada, and because of this it is difficult for British importers of Canadian grain to give a preference to grain shipped through Canadian ports.

Even under existing transportation conditions there is no doubt, however, that some British importers prefer grain shipped through Canadian channels. On the other hand, there is equally no doubt that some cargoes of grain shipped through Canadian channels have gone out of condition, and that some British buyers have little fault to find with shipments from United States. No British buyer interviewed expressed a preference for cargoes of Canadian grain shipped through United States ports, except in so far as these offered more ocean tonnage and better ocean rates. Were ocean transportation conditions more equal Canadian grain channels would undoubtedly tend to be preferred.

7.—The Liverpool Option Market.

There is an option market at Liverpool in connection with which there are certain wheats recognized as tenderable. For the purposes of this market there is a Liverpool Inspection department, under which a grading committee grades the grain according to standards set by the Liverpool Association.

The wheats that are tenderable are:—

Hard winter wheat, basis of weight, 60½ pounds.

American Red Wheat.

Spring wheat, if of the type known as Manitoba, basis of weight 60 pounds. If of the type known as Northern (grown in the United States), basis of weight 59 pounds. Any other type of spring wheat, basis of weight, 60 pounds.

Soft Winter wheat, free from garlic, basis of weight, 61 pounds.

Argentine Wheat.

Rosario, Santa Fe type, basis of weight, 59½ pounds.

Bahia Blanca type, basis of weight, 60½ pounds.

Australian Wheat.

Victorian, South Australian, New South Wales, basis of weight, 60½ pounds.

Canadian wheat is thus tenderable on the Liverpool option market. Naturally the dealer will tender upon his contract the tenderable wheat that is at that time cheapest. An enquirer into the price of Canadian wheat in Liverpool, therefore, might conclude that if Canadian wheat were tendered to a large extent upon the Liverpool option market this would prove that the Canadian wheat was cheaper than other tenderable wheats at the time of trading. He might therefore argue that if, as a matter of fact, Canadian wheat is not frequently tendered on the Liverpool option, Canadian wheat sells at a favorable price as a rule. Having reached this conclusion, the observer would then naturally ask for statistics, with the object of showing that as Canadian wheat was not frequently tendered upon the Liverpool option, its price must usually be higher than that of other tenderable wheats. When, however, he examines the wheat statistics, he may be disappointed at finding that the statistics given him are for American wheat or, in other words, that the statistics given him do not distinguish between wheat grown in the United States and wheat grown in Canada. At all events, he will find that American wheat, that is, wheat including both United States and Canada, is not tendered apparently to the same volume as is the Argentine wheat. But, whatever value this proof of the high price of Canadian wheat may possess, it would appear to possess in common, so far as statistics go, with the wheat from the United States. Further, the statistics given may indicate that Australian wheat appears to be less frequently tendered than either Argentine or American wheat, so that the observer would probably conclude once more that it is an exceedingly difficult matter to analyse all the factors determining prices of grain in the international market, and quite a difficult matter to demonstrate what method of trading secures the highest price.

In connection with the inspection system in Liverpool for the option market, it is not without interest to learn that as far as legislation goes, this market is very free, and that, for example, mixing of grades, with the object of bringing grades up to the standards of the grading committee, is permitted, and is, to some extent, carried on in Liverpool.

8.—Sampling by Canadian Officials in British Ports.

A suggestion was made to the Board of Grain Commissioners a year ago to the effect that Canadian officials should be placed at British ports for the purpose of taking samples of arriving cargoes of Canadian grain, whether shipped from Canadian or United States ports.

If this suggestion were acted upon, it would involve a not inconsiderable expenditure upon a revenue already heavily taxed, and the question arises whether such expenditure is necessary or justifiable. Had such officials been at work during the last two years, there is no doubt that their work would have confirmed many of the complaints made by the British importers about the condition of oats and the admixtures in flax. But with regard to the grading of Canadian grain, apart from these two complaints, there is very little ground for believing that such work would have discovered any real information. Complaints about grading, apart from condition and admixtures, are so few that one may fairly doubt the wisdom of spending money in the way suggested. Further, it is probable that the London Corn Trade Association, which already has a system of securing samples of arriving cargoes, might co-operate in the taking of samples of cargoes of Canadian grain, should such be deemed advisable. It is very doubtful, however, whether the proper place for such sampling is the United Kingdom. So far as Canadian grain channels are concerned, samples could be taken much more easily when the grain is being loaded into the ocean vessels at Canadian ports. The Board of Grain Commissioners has already arranged to have such samples taken at the port of St. John, and it would be an easy matter to arrange to have such samples taken during the season of navigation at the more important port of Montreal.

Chapter III.

FINANCE

Banking and Media of Exchange

MEDIUM OF EXCHANGE.

Those who have investigated the subject claim it to be an established fact that in the primitive ages of the world there was no such thing as money, and that articles passed from one to another just as the boys of to-day swap jack-knives. When and how money began to be used as a measure of value and a medium of exchange is a question on which authorities differ, but it is a generally accepted fact that no great use was made of it until labor began to assume definite divisions and workmen required to receive something for their labor which might be exchanged for the food, clothing, etc., necessary for themselves and their families. Not long after this stage in human progress was reached, there appeared a disposition on the part of the individual to spend less than he earned, or to earn more than he spent, and to hoard the difference by putting it away in a strong box or in a hole in the ground. Simultaneous with the appearance of this disposition there came on the scene goldsmiths, who not only lent out what money they had of their own, but also borrowed from hoarders at a low rate of interest and lent it to others at a higher rate. This was not the most satisfactory arrangement and the hardships which lenders often suffered, coupled with the fact that the Governments themselves were large borrowers and also required better facilities for the proper distribution of money and the maintenance of a good class of coins led to the establishment of banks. Among the first to appear in the world was the Bank of England. With the establishment of banks and the further development of trade there appeared a new medium of exchange, viz., credit, which is now used for well over three-quarters of all commercial transactions.

BANKING.

The banking institutions of any country are its principal reservoirs of money and credit. Like the pumping station of a city, or, better still, like the cardiac organ of the human system, they keep the streams of money and credit coursing through the country's veins for the nourishment and growth of its industry and commerce. Where this circulation is sluggish industry and commerce languishes. Where it flows free and strong the community prospers, providing the people know how to make proper use of the credit offered. No more credit can be taken out of the system than is put in,? and if there is no more put in than is taken out, industry and commerce ceases to grow and expand.

It is a grave and dangerous mistake for people to feel that banks can create money or credit.? Those which have attempted to do so, have had but a short existence. Credit is created by the producers of saleable commodities, and more particularly those of them who produce more than they consume. The person who consumes more than he or she produces is a drain upon the credit of the country.

The main purpose of credit is not that it should be consumed, but that it should be used by producers to create more credit, just as a farmer uses his seed to replenish and augment the supply of grain. It should be the object of the banking institutions to see that credit is extended or loaned only to producers or to those who will encourage production.

The money and instruments of credit, with which banking institutions have to deal, are nothing more than transmitting vehicles by means of which credit is passed from one person to another in the course of business transactions. When the business of the country eases off, as it does at certain seasons of the year, these instruments of credit flow back to the reservoirs of credit, particularly the savings departments of banking institutions. From this consideration, the ideal banking system is that which has the power of extending and withdrawing credits in the form of "currency,"* according as the business of the country requires more or less of it. But the bank, which keeps all its stores of credit always on tap, does not do a very profitable business; and it must not be overlooked that the banking business is conducted for purposes of profit just as any other business is. It is, therefore, the difficult task of the banker to keep invested or loaned out at a profitable rate of interest, as large a portion of the credits entrusted to him by depositors, as possible, and at the same time to keep on hand in a liquid form sufficient to meet all current demands of depositors who have the right to withdraw without notice.

To assist him in this difficult task the banker requires depositors to say if they desire their deposits to be placed in the Savings Department, from which they may be drawn only after notice, or if they wish them to be placed in the current account, from which they may be withdrawn at the will of the depositor without notice. On deposits in the Savings Department, interest is usually allowed at the rate of 3 per cent., while no interest is paid on current account deposits. These regulations, however, are only for the purpose of defining the rights of the banker, and, while generally insisted upon, are not always rigidly adhered to. During ordinary times, a banker will often cash a cheque drawn on a savings account without notice and will occasionally allow interest on monthly balances in a current account, particularly where the depositor is in the habit of keeping fair-sized balances.

(*) By "currency" is meant not only money and cash but also Government and bank bills, or any other printed or written instrument of credit which passes readily from one person to another as a medium of exchange. The word "funds" is sometimes used in the same sense. "Money" and "cash" ordinarily means gold, silver, nickel and copper coins, although, strictly speaking, gold only is money since it is the only medium of exchange with a face value always equal to its intrinsic value. The other coins are simply tokens. If a $5 gold piece is cut in two each half is worth $2.50, or each quarter is worth $1.25, &c. But if a 50c silver piece is cut in two, each half is worth only about 12c, viz., the value of the silver in it. The quarter of it would be worth only about 6c, &c.

Another custom of the banks which it may be well to make reference to is that of issuing Deposit Receipts. Ordinarily deposits placed in the savings department may not begin to draw interest until the beginning of the month after a deposit. To overcome this loss of interest, anyone with a considerable amount of deposit does so on what is known as a Deposit Receipt. This enables the depositor to draw interest from the date the money is deposited, ordinarily at the rate of 3 per cent. There is no hard and fast rule as regards the minimum amount which may be deposited in this way, but the banks require that the minimum time for such deposits is three months. The minimum time during which interest may be paid on deposits in the ordinary savings department is one clear calendar month, and the minimum time for notice of withdrawal is seven days.

Another feature of banking, which adds to its elasticity in the matter of expanding and contracting credits, is the right which banks of issue have of issuing their own currency in the form of bank bills or notes. These can be used only to meet a legitimate demand created by an expansion of commerce, otherwise they cannot be kept in circulation, as will be explained in another part of this chapter when dealing with bank bills and cheques. In ordinary times, the Canadian banks of issue have the right to issue bank bills to the full amount of their paid-up capital. In harvest time and for a few months thereafter, this issue may be increased by an amount not exceeding 15 per cent. of the bank's capital and reserve. On this excess issue a tax of 5 per cent. is paid to the Government and the Canadian Bank Act requires that the whole of this excess issue must be withdrawn by a certain date each year. As a temporary measure to meet the exceptional conditions created by the European war, bank notes may be issued on the collateral of certain securities acceptable to the Department of Finance. The ordinary bank note issue is secured (1) by a reserve fund of not less than 5 per cent. of the average issue of each bank, which reserve fund is deposited with the Government; (2) by making the bank note issue a first charge on all the assets of the bank, and (3) by making the stockholders of the bank liable for double the amount of the stock held.

The banking business of Canada is done by (1) Private Banks, (2) Banks of Issue, commonly known as Chartered Banks, (3) Savings Banks, (4) Post Office Savings Banks, (5) Savings and Loan Societies, and (6) Trust Companies. (7) A certain amount of banking is done by Insurance Companies and other repositories of credit.

Private Banks.—At one time, considerable of the banking business of Canada was done by private banks. But through failure, retirement and absorption by the larger banking companies, they have almost completely disappeared. They never had the right to issue bank bills. In all other respects they enjoyed full banking privileges.

Chartered Banks of Issue.—These are the only institutions in Canada that have the right to transact all kinds of banking business. (1) They accept money on deposit, either in their savings departments or for current account. (2) They make loans to their customers, either with or without collateral security, generally at rates from 6 per cent. to 7 per cent. per annum; and at the same rate they purchase or discount their customer's drafts, bills of exchange, bills receivable, &c. (3) They issue currency of their own known as bank bills. (4) They sell money orders and transmit by telegraph or otherwise credit to points where they have branches or agencies, charging certain fees for such services. (5) They issue letters of credit either commercial, domestic or travellers'. (6) They make collections. (7) They act as stock agents. (8) They act as the financial agents for governments, either domestic or foreign. (9) Many banks also act as repositories for the important documents of their clients.

The number of chartered banks of issue in Canada is small (22 in all); but each has such a large number of branches (in the aggregate, over 3,000) scattered throughout the country, one or more being located in every community of any size, that this country is well supplied with banking facilities. These banks also maintain branches or agencies in the principal centres of other countries, particularly those with which Canada has close commercial relations such as Great Britain, United States, West Indies and Newfoundland. In this way they provide the country with international banking facilities.

The Dominion Government through its department of finance endeavours to keep a pretty close supervision over these banks of issue. Their charters terminate and are renewed every ten years and they are obliged to make monthly returns of their business to the Finance Department. These returns, which are published each month in the JOURNAL OF COMMERCE, give a statement of the affairs of each bank covering the following items:—

ASSETS:—

The amount of gold and subsidiary coin held by the banks in Canada.

The amount of gold and subsidiary coin held by the banks in their branches outside of Canada.

The amount of Dominion notes held by the banks in Canada.

The amount of Dominion notes held by the banks in their branches outside of Canada.

The amount deposited with the Minister of Finance for the security of note circulation.

The amount held in the central gold reserves.

The amount of the notes of other banks which they hold.

The amount of the cheques on other banks which they hold.

Loans to other banks in Canada secured, including bills discounted.

Deposits made with and balances due from other banks in Canada.

Deposits made with and balances due from banks and banking correspondents in the United Kingdom.

Deposits made with and balances due from banks and banking correspondents elsewhere than in Canada and the United Kingdom.

Dominion Government and Provincial Government securities held.

Canadian Municipal securities, and British, Foreign and Colonial public securities, other than Canadian.

Railway and other bonds, debentures and stocks.

Call and short (not exceeding 30 days) loans in Canada on stocks, debentures and bonds.

Call and short (not exceeding 30 days) loans elsewhere than in Canada.

Other current loans and discounts in Canada.

Other current loans and discounts elsewhere than in Canada.
Loans to the Government of Canada.
Loans to Provincial Govenments.
Loans to cities, towns, municipalities and school districts.
Overdue debts.
Real estate other than bank premises.
Mortgages on real estate sold by the bank.
Bank premises at not more than cost less amounts (if any) written off.
Liabilities of customers under letters of credit as per contra.
Other assets not included under the foregoing headings.
Total assets.

LIABILITIES:—

Notes in circulation.
Balances due to Dominion Government after deducting advances for credits, pay lists, &c.
Balances due to the Provincial Governments.
Deposits by the public payable on demand in Canada.
Deposits by the public payable after notice or on a fixed date in Canada.
Deposits elsewhere than in Canada.
Loans from other banks in Canada secured, including bills re-discounted.
Deposits made by and balances due to other banks in Canada.
Due to banks and banking correspondents in the United Kingdom.
Due to banks and banking correspondents elsewhere than in Canada and the United Kingdom.
Bills payable.
Acceptances under letters of credit.
Liabilities not included under the foregoing headings.
Total liabilities.

THESE RETURNS ALSO GIVE THE FOLLOWING INFORMATION:—

Capital authorised.
Capital subscribed.
Capital paid up.
Amount of rest or reserve fund.
Rate per cent of last dividend declared.
The aggregate amount of loans to directors and firms of which they are partners.
Average amount of current gold and subsidiary coin held during the month.
Average amount of Dominion notes held during the month.
Greatest amount of notes in circulation at any time during the month.

Savings Banks.—There are not many of these banks in Canada and only two of special importance. These transact a banking business very similar to that of the chartered banks of issue, with the exception that they do not issue bank notes nor are their shareholders liable for double the amount of the shares they hold.

Post Office Savings Banks.—These are conducted in connection with the Post Office, where facilities are provided for those wishing to open a savings account and make deposits, which, of course, are transmitted to Ottawa. A rate of 3 per cent. is allowed on all deposits. Withdrawals cannot be made without notice. The system is quite different from the savings bank abovementioned. The business of Post Office Saving Banks is generally a matter of bookkeeping, because any moneys paid in find their way directly into the ordinary banks of the country, and in case of withdrawals the orders which are issued by the Government are always cashed by the ordinary banks.

A reserve of 10 per cent of the amount of the deposits is held by the Government in gold.

Savings and Loan Societies.—These organizations are very largely investment companies. The deposits are seldom withdrawn except after a considerable notice or at a stated time. The cheques issued to those withdrawing their savings are cashed by the ordinary banks.

Trust Companies.—These companies are generally operated in close association with banks or other financial institutions, such as insurance companies. They do a class of business, very often with the assistance of the associated banks, which the laws of the country would not permit the banks to do. They act as trustees for estates and bondholders and as transfer agents, registrars, executors and administrators. They also maintain large vaults fitted with deposit boxes for the safekeeping of the documents and securities of persons who desire to rent them.

Insurance Companies.—Insurance companies, particularly those doing a life business, are important accumulators of credit, and in this sense deserve to be classed among the banking institutions of the country. They also make loans to their policy-holders. On account of their large accumulations of credit are important purchasers of securities.

COINAGE.

The privilege of coining money has always been retained by the governments of all civilized countries, each of which at the same time endeavors to eliminate from circulation the coins and currencies of other nations. In this matter Canada has always been very liberal. The coins and bank notes of the United States pass almost as readily in Canada as they do in their own country. In Great Britain and Canada it is not possible to have coins struck anywhere except at the Royal Mint in London or at its branch at Ottawa. But at either of these places anyone can have gold bullion converted into coin free of charge. In English practice, however, it rarely happens this way because the person would have to wait until his gold was coined, whereas the Bank of England will pay him within 1½ pence in the pound sterling as much as he would get at the Mint. Moreover, few people have refined gold to offer and the Royal Mint in London accepts only the refined article. The person with unrefined gold is therefore compelled to sell to refiners. The United States Mint at Washington accepts unrefined gold and makes a small charge for refining it. By a recent amendment in the Coinage Act of Canada the mint at Ottawa is also authorized to accept unrefined gold.

London is the market to which the surplus of yellow metal, from whatever part of the world it is mined, goes, and the price of such of it as does not go thither is also set by the London quotation. The producer takes his gold to London with the assurance that no matter how much or how little he has to offer he will receive a price there of not less than £3.17s. 9d. per ounce, because this is the price which the Bank of England is authorized by statute to pay irrespective of the quantity offered. The price is paid in Bank of England notes. On the other hand, "The Old Lady of Threadneedle Street"—as the Bank of England is often called—cannot pay more than the above-mentioned price, so that when gold is selling at a premium the Bank of England gets none of it. In fact, when there is a demand for gold the Bank of England runs the risk of losing much of what she already has by her own notes being presented for redemption. When the withdrawals of gold from the bank in this way are so heavy that they require to be checked, the directors do so, not by raising the price of gold, but by increasing the rate of discount.

Silver coinage is on a different basis from that of gold. It is used only for small change and is not legal tender beyond forty shillings in Great Britain nor ten dollars in Canada. By this is meant that the largest amount of silver a creditor can force his debtor to accept in payment of a debt must not exceed the above-mentioned amounts. Standard silver, from which coins are made, consists of thirty-seven parts of pure silver and three parts of copper. Its fineness is represented by 925. There is considerable profit to the Government in coining silver. An ounce of fine silver costs about fifty cents and will make over a dollar's worth of silver coins. Gold coins cease to be legal tender when by use or otherwise their weight is reduced. For instance, a sovereign ceases to be legal tender when its weight is less than 122.5 grains. But in the case of silver there is no weight fixed below which a silver coin ceases to be legal tender. It is sufficient that its denomination is decipherable. Of course all silver coins of the same denomination are of a certain standard weight when they come from the mint, but after they have been in circulation for a while they become worn.

Bronze is an alloy composed of 95 parts of copper, 4 parts of tin and 1 of zinc. As in the case of silver coins the value of bronze coins is very much greater than the value of the metal in them, and hence their manufacture is also a source of profit. Bronze coins are legal tender only to the amount of one shilling in Great Britain and twenty-five cents in Canada.

Some countries, such as the United States and Germany, use nickel instead of silver for their smaller coins, for instance, five cent pieces.

The Royal or Imperial Mint in London has four branches, three in Australia, viz., at Sydney, Melbourne and Perth, and one at Ottawa, Canada. There is also a private mint at Birmingham, England, which does custom minting.

The total number of coins stuck at the Imperial Mint in London in the year 1913, was as follows:—

Gold (Sovereigns and half sovereigns)	30,633,962	coins
Silver (5s, 4s, 2s. 6d, 1s, 6d, and 3d pieces)	49,201,527	”
Bronze (1d, ½d, and ¼d, or farthing)	93,327,672	”
Nickel bronze (3d pieces for colonies)	12,273,600	”
Total	185,436,761	

Of this amount 150,089,161 coins were for the British Government, and 35,347, 600 coins was custom work for various British colonies.

In 1913 the pieces struck by the Mint at Ottawa were as follows:—

British sovereigns	4,040	coins
Ten dollar gold pieces	149,232	”
Five dollar gold pieces	98,832	”
Silver pieces (half dollars, quarters, 10c and 5c pieces)	11,681,469	”
Bronze (cent pieces)	5,735,405	”
Total	17,668,978	”

The profits on silver bullion purchased for coinage by the mint at Ottawa were $626,964.04, and on bronze metal purchased for coinage $44,016.10 for the year of 1913. There was a loss on worn silver coin of $16,501.95. In 1913 the Finance Department exported foreign silver and bronze coins (mainly of the United States) to the amount of $2,034,927.67. American coins pass readily from one person to another but when they are received at Canadian banks they are seldom paid out again, but shipped abroad by the banks under an arrangement with the Dominion Government, which allows them a small commission for this service.

CREDIT.

What has been said heretofore has had to do mainly with metallic coin money. But this is by no means the only medium of exchange. Everything which transfers ownership is a part of the currency of the country.

“A coin signifies the indebtedness of society to the individual who possesses it. This indebtedness is transferred by a transfer of the coin. A bank note indicates the indebtedness of the bank by its promise to pay to the holder of the note. It passes from hand to hand and takes the place of money so long as the credit of the bank is good and the belief exists that the bank has sufficient possessions to meet the face value of the note in case of need. Again, bills of exchange, cheques, promissory notes, etc., are in enormous circulation. They also pass from hand to hand and are accepted, if it is believed that they will be met at maturity. They are taken and dealt with instead of money. They all represent debt, just as a coin does, though they exist upon credit. And so long as they circulate in the country they represent a part of its currency.

“It is difficult to arrive with any certainty at the comparative amounts of money and credit which are in daily use. But from various calculations that have been made at different times it has been estimated that in London, at any rate, paper money as currency is responsible for over ninety-five per cent.

of the business transactions carried out. In the country the ratio is probably much less, from eighty to ninety per cent. But these figures must be received with all caution. Nevertheless it is obvious how great would be the difficulties if the currency consisted of nothing but metallic coinage, the value of which would rise enormously.

"It is quite true that the issue of paper currency is based upon the quantity of gold in the country to a certain extent; but no one ever expects that all the instruments of credit will be liquidated in that metal. Confidence is the foundation of all. When that confidence is great, the issue will be increased and so long as the credit of the various persons who are under obligations is good, no difficulties will arise. The transfer of the instruments of credit will be quite easy and their liquidation almost a certainty. But this liquidation is invariably affected by a transfer of credit and not by a transfer of money. It is to the business community that the amount of the issue must be left with all confidence. An over issue of instruments of credit may lead to financial disaster, but that is owing to the failure of credit and not to the amount of money which is in existence."*

INSTRUMENTS OF CREDIT.

All instruments of credit met with in business may be divided into two great classes, namely, instruments **Negotiable Without Endorsement,** such as Government and bank notes used as ordinary currency, and instruments that are **Negotiable by Endorsement,** such as Bills of Exchange, Promissory Notes, etc. By "negotiable" is meant the right or quality of being transferable from one person to another.

Instruments of credit may also be given a classification according to the purposes for which they are used, as follows:—

(1) Paper currency, such as **Government Notes** and **Bank Notes,** and generally, instruments of credit that pass readily from one to another without endorsement.

(2) Instruments that are used largely for the transmission of credit from one to another, but which must be endorsed by the drawee before the instrument can be honored. Under this heading may be placed **Cheques, Money Orders, Postal Notes, Letters of Credit, Travellers' Cheques,** etc.

(3) "An unconditional order in writing addressed by one person to another, and signed by the person giving it, requiring the person to whom it is addressed to pay on demand, or at a fixed or determined future time, a sum certain in money to, or to the order of, a specified person, or to bearer."† In this class may be put **Drafts,** and all other **Bills of Exchange**, such as **Finance. Bills, Documentary Bills,** etc.

(4) Documents which acknowledge that goods or chattels have been placed in the custody of the person or firm giving the documents for the purpose of transmission, storage, etc. In this class may be put such instruments of credit as **Bills of Lading, Warehouse Receipts, Deposit Receipts, etc.**

(5) Documents acknowledging the existence of a debt, such as **Promissory Notes, I. O. Us.,** etc. Also **Mortgages, Liens, Debentures,** etc. The latter class generally require to be registered at the local registration office.

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* Definition according to British Law.

† "Money Exchange and Banking," by H. T. Easton.

(6) Documents which acknowledge the ownership of lands, or other immovable property, and which also require to be registered. **Deeds are a good** example of this class.

(7) Documents such as **stocks** and **bonds** of Limited Liability Companies, that have been chartered in accordance with the requirements of the provisions of the Limited Liability Companies Act of the Dominion, or of any of the Provinces: of companies that have acquired existence by reason of special legislation, as in the case of banks, insurance companies, railways, etc.

(8) Documents which acknowlede the receipt of moneys, and which undertake certain obligations on account of these payments and others which may require to be made from time to time over a stipulated period. In such a class may be put **Insurance Policies,** whether **Marine, Accident, Liability, Life, Causality,** etc. The obligations which such contracts generally undertake, are to pay a certain stipulated amount in the event of a certain contingency arising. If this contingency does not arise, that is, if the goods insured are not lost, or the accident does not happen, or the person does not die, the Company insuring has no obligation to return the money, but retains the payments that have been made to compensate it for the carrying of the risk.

GOVERNMENT NOTES.

A very important factor in Canadian finance is the Dominion Government. In addition to being the sole producer of and having complete jurisdiction over the coinage of the country, it issues **Government** or **Currency Notes** and receives money on deposit in its **Savings Banks** in connection with the **Finance Department** and **Post Office,** as well as exercises an important control over the affairs of the country's banks and other financial institutions.

On the 30th of June, 1915, the Dominion Government held deposits in the Post Office Savings Bank and Government Savings Banks to the amount of $53,146,382.23. On the same date the amount of Government notes outstanding, was as follows:—

Fractional		$822,249.91
$1	Bills	12,562,827
$2	"	8,919,816
$4	"	53,195
$5	"	2,819,397
$10	"	2,180
$20	"	860
$50	"	12,200
$100	"	2,200
$500	"	2,192,500
$1000	"	4,401,000
$500	Legal Tender Notes for Banks	237,500
$1000	" " " "	1,245,000
$5000	" " " "	118,850,000
Total		$152,120,734.91

For the redemption of the above-mentioned Dominion notes the Government held gold to the amount of $89,573,041.43. The Government also held in gold $5,314,638.23 as a reserve against its savings deposits, being ten per cent. of the amount. It will be noticed that the larger amount of Dominion currency is issued as "Legal Tender Notes for Banks." These are retained in the vaults of banks as **Reserves** or used by them to settle, through the clearing houses, the balances which one may owe the other, as a result of the cheques issued, and deposits made by their customers from day to day. About the end of June, 1915, the amount of Dominion notes which were held by Canadian banks was $131,064,696, exclusive of the amount which was held by the City and District Savings Bank of Montreal, and by the Caisse D'Economie Notre Dame of Quebec (these two Banks do not make monthly returns to the Government in the same forms as do other chartered banks). So that the amount of **Dominion Notes** which was in circulation among the people of Canada at the end of June, 1915, was somewhere in the neighbourhood of $20,000,000. The amount of **Gold** and **Subsidiary Coin** that was held by the Banks at the end of June, was $39,681,134. It is almost impossible to ascertain the amount of gold and subsidiary coin that is in the homes, vaults, and pockets of the people, at one time.

BANK NOTES.

The Chartered Banks of Canada have the privilege of issuing Bank notes of the denomination of $5, $10, $20, $50, $100 and $500, up to an amount already explained. At the end of June, 1915, the amount of Banks notes in circulation was $99,125,126.

CHEQUES.

There is no instrument of credit that bulks so large in the business of the country as does the cheque. It is so easy to keep an account at a bank, where all one's receipts and credits in the form of cash, cheques, discounts, etc., may be deposited and credited to his account, and where all one's expenditures may be made by simply filling out a **cheque,** that is, a form supplied by the banker, authorising him to hand over a certain amount of credit to a specified person or to the bearer of the cheque, that no one would think of doing business in any other way. It is so much safer and more convenient to do business in this way than to attempt to settle accounts by paying out cash and other currency, which is carried about in one's pockets or kept in private vaults. Moreover, the cheque itself stands as a receipt for the amount paid. Banks take every precaution to see that the proceeds of all cheques are paid to the proper persons. All cheques deposited must be properly endorsed by the firms or persons to the credit of whose accounts they are placed, and any person presenting a cheque to be cashed over the counter must be identified and made known to the bank before it will be cashed. All cheques should be made payable to **order,** and not to **bearer,** otherwise the bank has not the same power to see that the proper person receives the proceeds of the cheque. If a cheque is issued, and the maker has any reason to believe that it is likely to be cashed by the wrong person, or for any other cause whatsoever, desires a delay in the cashing of it, all that is necessary is for him to notify the bank upon which it is drawn not to honor it, and the payment is at once stopped. Each customer of the bank is provided with a **Pass-book,** that is a book into which all deposits and withdrawals are entered according as they are made. At the end of each month, this book is handed into the bank, and within a day or so is returned to the customer, together with all the cancelled cheques that have been issued by him. From the endorsement on the back of each of these he can easily ascertain the person or firm who has cashed the cheque, or the account to whose credit it had been placed.

If the cheque is given to some one who deposits it to the credit of his account in the same bank or in a branch of the same bank as the one on which it is drawn, or if he has it cashed, that is if he received the money for it at the same bank, the necessary entries are made, and the cheque goes no further. But if the cheque is deposited to the credit of an account in another bank or branch of another bank, or if it is cashed at another bank, it first goes to the Clearing House, where it is handed over to the bank on which it is drawn—the amount being charged up to this bank, while the bank that brought it in is credited with it. When all the cheques that pass through the Clearing House in the course of a day's business are entered against and credited to the proper banks the operation results in some of the banks that are members of the Clearing House owing others. This balance is generally paid in gold. In Canada it is paid with "Legal Tender Dominion Notes" described above, which represent gold deposited with the Dominion Government. Occasionally, instead of paying the difference in gold, the creditor bank receives a **Clearing House Receipt.** This is done in cases where a bank has a **Run,** that is, where its clients are withdrawing their deposits and putting them in other banks or hoarding them. In this case the bank can meet its Clearing House obligations only as long as its stock of gold and Dominion Notes last, and unless the Clearing House comes to its rescue, the bank fails and has to close its doors. If the clients accept the notes of the banks and hoard them the bank is safe. But if they deposit them in other banks, it is just as bad as if they deposited cheques, because bank notes are also handed back through the Clearing House to the bank issuing them in the same manner as cheques. In the New York Clearing House, which is the greatest on the Continent of North America, the total clearings in 1913 amounted to $98,121,520,297, and the balances paid amounted to $5,144,130,385.

The Clearing House returns are generally accepted as one of the best indicies of the amount of business that is being done in the country. The clearings in the different Clearing Houses of Canada during the year 1913 was as follows:—

Montreal	$2,889,118,000
Toronto	2,181,281,507
Winnipeg	1,634,977,237
Vancouver	606,899,710
Calgary	247,882,928
Edmonton	213,053,319
Ottawa	207,667,008
Hamilton	177,946,610
Victoria, B. C.	176,977,074

Quebec	165,674,745
Regina	132,087,457
Halifax	105,347,636
Saskatoon	96,034,723
London, Ont.	90,720,752
St. John, N.B.	82,447,747
Moose Jaw	61,370,949
Total	$9,059,487,402

MONEY ORDER AND POSTAL NOTES.

An instrument of credit very similar to the cheque is the **Money Order** and **Postal Note.** Money orders are issued by the Banks, the Post Office and the Express Companies. Postal notes are issued by the Post Office. In 1913 the Post Offices of Canada issued money orders payable in Canada to the amount of $61,324,030, and orders payable in other countries to the amount of $39,829,243. In the same year they cashed orders that had been issued in other countries and payable in Canada to the amount of $9,081,627. In the same year the Canadian Post Offices issued postal notes to the value of $8,569,462.

The financial business transacted by the Express Companies in 1913, was as follows:—

Money Orders payable in Canada	$49,773,324
Money Orders payable elsewhere	3,510,668
Travellers' cheques payable in Canada	1,771,905
Travellers' cheques payable elsewhere	1,416,201
Collections for C. O. D. parcels	7,309,889
Telegraphic transfers	286,853
Letters of Credit	69,802
Others forms	905,551
Total	$65,044,193

TELEGRAPHIC TRANSFERS.

The great bulk of transfers of credit from one place to another is made by sending a cheque, money order, postal note, or other instrument of credit through the mails, but if the transfer is required to be made in a shorter time than the mails would take, any Bank or Express Company will undertake to send it by telegraph. In this case, the sender deposits with his Banker or Express Company the amount necessary to cover the sum he desires to send, together with the cost of the telegram, the exchange between the two points, and the commission exacted by the Bank or Express Company for the service. The bank or express company then notifies its bank or agency in the other place to hand over to a specified person the stipulated sum.

In Germany, the business of transferring money from one part of the Empire to another is performed by the Reichsbank—Germany's National Bank—which has branches in every important centre throughout the Empire.

Practically every bank, or other financial institution, and every merchant in Germany, keeps a current account with the Reichsbank or its branches on which no interest is paid, and a directory is published periodically giving the names and address of such depositors. If a merchant in Berlin wishes to transfer a sum of money to a person in Dresden, he deposits with the Reichsbank the amount he wishes to send, and the bank instructs its bank in Dresden by mail to pay over the amount to the person who is to receive the money there. Should the transfer be made by telegraph a fee for the telegraphic expenses is collected from the remitter, otherwise no charge is made for exchange or services. This system is called the Giro Conto Transfer. It is an important service in that it eliminates the exchange between the German centres, such as exists between Toronto, Montreal, Halifax, and other Canadian centres. It should be noted, however, that some Canadian banks do make transfers through their branches for customers who keep a fair balance on current account, just as does the Reichsbank.

DRAFTS.

In law, there is a good deal of similarity between the cheque and the Bill of Exchange, but in use there is the one important difference, that a cheque is employed to remit money while the Bill of Exchange is employed to exact or collect.

The domestic Bill of Exchange is commonly known as the **draft,** which may be drawn "at sight," "on demand," "after date," "after sight," or "on a fixed date." The time at which payment is to be made is fixed by the bill itself; but in the case of bills which are drawn otherwise than "at sight," "on demand," or "after sight," a period of three extra days called "days of grace" is allowed before payment can be demanded. Thus, if a bill is drawn on the 4th. of August, payable in three months "after date" (a month means a calendar month, that is, from the date in one month to the same date in the succeeding month), the date of payment is November 7th. If the third day of grace falls on a day appointed by proclamation as a public holiday, the bill is payable on the last preceding business day. If it falls on a bank holiday, payment is due on the succeeding business day. If the last day of grace is Sunday, and the proceeding day is a Bank Holiday, payment is due on the succeeding business day. The ordinary form of a draft is as follows:—

$100.00. MONTREAL, Que., August 4th, 1915.

> Three months after date pay to the order of the Bank of Montreal the sum of ONE HUNDRED DOLLARS, value received and charge to the account of

RICHARD ROE, (Signed), JOHN DOE.
Toronto, Ont.

In this case John Doe has drawn on Richard Roe a draft for $100, payable three calendar months and three days from August 4th, 1915, through his bank, namely, the Bank of Montreal. If John Doe wishes to use this draft, he will have it discounted by the Bank of Montreal at the current rate of interest for three months and three days, plus the exchange which ordinarily is 1-8 per cent. between Montreal and Toronto, and he will have the proceeds placed to the credit of his account. The Bank of Montreal at once forwards the draft by mail to its branch at Toronto, where it is presented to Richard Roe for acceptance. This is done by Richard Roe writing the word "Accepted" across the face of the draft together with his name. He may also state where he wishes the draft presented for payment. It is customary for the acceptor to make it payable at his own bank. If Richard Roe refuses to accept the draft, it is returned to the Bank of Montreal, in Montreal, and charged back to the account of John Doe.

An instrument frequently used for the transmission of credit is the Bank Draft which is sold by banks to those wishing to transmit credit for the purpose of paying an account or other debt. Used in this way, the draft serves the same purpose as a money order, or, in fact, the same purpose as a cheque, the only difference being that the Bank Draft is payable in the place upon which it is drawn and always includes the cost of exchange, whereas the cheque is not usually made for an amount including the exchange.

LETTER OF CREDIT.

This is a letter which bankers give their customers for the purpose of assuring those from whom they buy goods that their obligations to the amount stated in the letter will be met. It is mostly used by importers. For example, suppose a merchant in Montreal arranges with a house in London, or, perhaps, with an exporter in Patras, Greece, for the purchase of currants, at a price F. O. B. the point of production, to be shipped to Montreal, cash against documents. In this case, the London house or Patras exporter may require some assurance that his drafts will be met by the Montreal merchant when presented and this assurance is generally given by a Letter of Credit, which the Montreal merchant gets from his bank. Ordinarily a copy of this letter of credit would be sent to the London branch of the Montreal bank, and the Montreal merchant would instruct the Patras exporter to draw on the London branch of the Montreal bank. In this case, the draft with the Bill-of-Lading attached would be presented in London. The draft would be paid there and the Bill-of-Lading taken up and forwarded on to Montreal.

Letters of credit of a somewhat different type are sold by banks to people travelling abroad in order to enable them to get money when they may want it. This class of letters is generally made payable at the branches or agencies of the banks issuing them. According as the traveller raises money on his letter of credit the amount is written on the back of the letter, and when the whole amount stated in the letter has been exhausted, the letter is taken up by the last agency or branch to make payment and is forwarded by it to the Head Office of the bank issuing the letter.

DOCUMENTARY BILLS OF EXCHANGE.

Much of what has already been said concerning a draft or domestic Bill of Exchange, also applies to foreign Bills of Exchange, which are generally known as either **Documentary Bills** of **Exchange**, or **Finance Bills** of **Exchange**. A Documentary Bill of Exchange is always used in the case of the export of goods, and is always accompanied by the Bill of Lading, which the exporter has received from the shipping company. The marine insurance certificate which covers the risk during shipment is also attached, as well as the necessary custom's export papers. Frequently the invoice for the goods is also attached; this is not always necessary as the exporter may send his invoice direct by mail to the purchaser. Practically all payments for goods exported to, and imported from, Europe, are made by documentary bills of exchange, so that the amount of Canada's trade with that part of the world is an indication of the extent to which this instrument of credit is used in Canada.

The ordinary form of a documentary bill of exchange is as follows:—

£110. 10. 0. TORONTO, Ont., August 4th, 1915.

Sixty days after sight of this **First** of **Exchange** (second unpaid) pay to the order of the Canadian Bank of Commerce, the sum of ONE HUNDRED AND TEN POUNDS TEN SHILLINGS sterling, value received, and charge to the account of

To RICHARD ROE, (Signed), JOHN DOE.
Manchester,
Eng.

John Doe, whom we suppose has sold the goods to Richard Roe to the amount of £110. 10. 0. after attaching his Bill of Lading, marine insurance certificate, custom's export papers, and invoice for goods to the above documentary Bill of Exchange, hands it over to his banker, which we assume to be the Canadian Bank of Commerce. This bank will discount the bill at the current rate of international exchange, and place the proceeds to the credit of John Doe's account. The Bank of Commerce at once despatches the documents to its branch in London, England, from where it will be sent to Manchester to be presented to Richard Roe for acceptance. As soon as Richard Roe has given the bill his acceptance, the bill of lading is delivered by the bank, or its agent, to him, and he hands it over to his shipping agent to wait the arrival of the vessel carrying his goods. The bill, after receiving the acceptance of Richard Roe, is returned to London, where it is held until maturity. If the draft had been drawn "at sight," Richard Roe would require to pay it at once, and so release the bill of lading. London is the greatest market in the world for discounting, and holding documentary bills until maturity, with the result that these bills are invariably drawn on London, no matter in what part of the world they may have been made. In fact, London is the only considerable money centre where there is a ready market for documentary bills of exchange. The floating surplus of money in such places as New York, and even Toronto and Montreal, is to a large extent used in the way of "call loans" for stock and bond purposes and speculation, whereas in London, to a very large extent, it is used for the financing of commodity shipments. The floating surplus of money and credit in other English cities is sent to London to be used as above described.

A purchaser of goods in Canada, the United States, India, Australia, or anywhere else, generally instructs the person from whom he buys, to draw on his London agent. Hence a merchant in Chicago may buy goods in, say South America, and have these goods shipped by direct sailing from Buenos Aires to New York, but the Bill of Exchange covering the purchase price will go to London to be accepted by the purchaser's agent there, and be held by one of the many discounting London banks or houses until maturity, and will not reach the merchant in Chicago on whom it is drawn until it has been paid and cancelled. In the same way goods shipped from Europe to South America are paid for by documentary bills of exchange drawn on the South American purchaser, accepted by the purchaser's agent in London, discounted in London, and retained there until maturity. Thus great quantities of documentary bills that are drawn by exporters in every part of the world on European purchasers, are cancelled by documentary bills drawn by European exporters on purchasers situated in different parts of the world. London is therefore the great Clearing House for the world's Documentary Bills of Exchange.

When it is realised that nearly 70 per cent. of the world's ocean commerce is carried in British bottoms, and that fully 80 per cent. of the documentary bills of exchange, which represent the value of this commerce, is financed in London, one begins to realize the commercial and financial importance of Great Britain.

FINANCE BILLS OF EXCHANGE.

The international movement of goods as above described, together with the international purchase and sale of securities of one kind and another, the expenditures which travellers of one country make in another, the charges for international freights, the interest on international borrowing, and all the other operations by which credits are transferred from one country to another in the course of work, business, and pleasure, naturally occasions a swelling of credit in one country, and a corresponding contraction of credit in others. This is particularly noticeable between countries such as the United States and Great Britain. In the autumn and early months of the year, the United States exports to Great Britain large quantities of raw materials such as cotton, tobacco, meats, grains, etc. At this period of the year, Great Britain becomes indebted to the United States for very large surpluses of credit. On the other hand, the large British investments in the United States create a constant flowing back of credit throughout the whole of the year to meet the interest. Furthermore, there is a constant flowing back of credit throughout the year by reason of the purchases which the people of the United States are constantly making of manufactured goods from Great Britain. But these are not sufficient to balance the credits due the United States at the time of the year when they are shipping raw materials so heavily, as they generally do during the above-mentioned period, and it would require more than all the gold in Great Britain to liquidate the balance at this time if it required to be liquidated in that way. But there is another instrument of credit that is made use of to equalise this balance, namely, the **Finance Bill of Exchange.**

Finance Bills are drawn at 30, 60, and 90 days sight by banks in the United States and Canada upon their branches or agents in London and other European centres. While by far the largest amount of these bills are drawn in pounds sterling, it must not be overlooked that many are also drawn in marks, or francs, or in the notation of other monetary units. When drawn in pounds sterling, they are known as **Sterling Finance Bills.** When drawn in marks, they are known as **Mark Finance Bills,** and when drawn in francs, they are known as **Franc Finance Bills.** These bills generally are accompanied, as collateral security, by certificates of stocks and bonds listed on the recognised Stock Exchanges of the United States and Canada. In case the bill is not met at maturity, the holder has the right to sell this collateral, and thus protect himself. Where the financial standing and responsibility of the drawer is sufficient, the bill is not accompanied by collateral security. The occasion for these bills arises when the amount of credit in one country becomes so great that the rate of exchange begins to drop, and the rate of interest for discount purposes begins to increase. This creates a situation where money is cheap in the centre where credit has accumulated, and dear in another where credit has contracted. Suppose, for instance, that money can be borrowed in London at 2 per cent., and can be loaned in Montreal at 7 per cent. In this case the banker in Montreal would find it profitable to draw a sterling finance bill in London, as the following example will illustrate. In this case, we assume that the Montreal banker draws a bill for £100,000 at 90 days sight.

	Per annum.
Commission 1-8 per cent. (proportionate rate for 90 days)	1-2%
British bill stamp 1-20 per cent. (proportionate rate for 90 days)	1-5%
Discount rate in London	2%
Total cost of loan in London	2 7-10%

or $2,587.50 for ninety days, on £100,000, approximately $500,000. This loan in Montreal at 7 per cent.. in ninety days, would return interest to the amount of $8,750, thereby leaving a net profit to the Montreal banker of $6,162.50.

'''Finance bills constitute one of the most important features of international banking operations, and in consequence command paramount attention. Indeed, the immense development of American industries within the last decade was accomplished through the expenditure of enormous sums of money raised principally by American Finance Bills.

''The millions and millions of dollars thus secured have been expended by railroad companies and other corporations in the improvement of their respective lines, rolling stock, and manufacturing plants.

''The millions thus spent are reflected by the increased capitalization represented by the stock and bond obligations of those companies and corporations. And while it is true that a very large percentage of these securities were immediately purchased for investment by American institutions and capitalists, still, it cannot be denied that European bankers, particularly English, assisted us, very materially, in financing these gigantic deals by the outright purchases of these securities for investment, or by the negotiation of loans, secured by the hypothecation of the various new issues of stocks and bonds.

''To give an idea of the vast amount of money borrowed by American bankers from the European bankers, let us mention in this connection that the

aggregate amount of outstanding Finance Bills representing our indebtedness for loans of this nature was, at the beginning of the year 1903, approximately estimated at from three to five hundred millions of dollars." *

The borrowings of the United States through the medium of Finance Bills of Exchange, are generally largest about the months of June, July, and August, when the quantity of goods that is being exported from America to Europe is smaller than at any time of the year. These bills are created in expectation of their being liquidated by shipments of cottons, grains, and other commodities, in about 30, 60, and 90 days hence. It is on account of this practice that for a few months after the war broke out in 1914, the United States found it difficult to meet their maturing obligations in Europe, where the markets were taking so much less of their cotton and other commodities than they had in former years. The situation, however, has been very materially improved since then. The constant export of goods and munitions of war from the United States to Europe, has created an exceedingly large balance of trade in favor of the United States. On July 31st, 1915, this balance amounted to $1,190,000,000. Ordinarily European countries would not allow such an adverse balance to continue for long, but would reduce it either by the transference of gold or of credit. But the continuance of the war creates exceptional conditions. The result, however, is that the price in the New York market of bills of exchange on European countries is exceptionally low, as may be seen from the figures that will be hereafter given.

FOREIGN EXCHANGE QUOTATIONS IN NEW YORK MARKETS.

Foreign Bills of Exchange are bought and sold by bankers, and the rates they pay, being determined by the quantity offering, differ almost from hour to hour. Most of the business in foreign exchange on this continent is transacted in New York, hence the rates ruling there are accepted by the other business and financial centres of the continent of North America. The rates allowed by the bankers in Montreal and Toronto, are the current rates in New York plus the local rate between that city, and the city of Montreal or Toronto, which is generally about 1-8 per cent. Very often bills of exchange are purchased or sold by Montreal and Toronto bankers at rates based solely on the relative financial conditions in these places and London. In quoting foreign exchange, documentary bills are often referred to as **Commercial paper**, and finance bills as **Bankers' bills.**. In a general way, sterling quotations are made on transactions of £10,000 and over, while continental rates are for amounts approximating 100,000 marks, francs, lires, and so forth.

Let us now examine the quotations of the New York Exchange Market, as they stood at 5 p.m. August 3rd, 1915. These were as follows:—

London—Bankers' 60 days	4.71¼
Bankers' 90 days	4.69⅛
Demand sterling	4.76 1-16
Cable transfers	4.76 11-16
Grain bills, 7 days	4.75
Grain bills, sight	4.75¾
Commercial, 60 days	4.71
Commercial, 90 days	4.69

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* "International Exchange," by A. W. Margraff.

Paris—Bankers' 90 days	No quotations
Bankers' 60 days	No quotations
Bankers' checks	5.69
Bankers' cables	5.68
Commercial, 60 days	No quotations
Commercial, 90 days	No quotations
Commercial, sight	5.70¼
Berlin—Bankers' 90 days	No quotations
Bankers' 60 days	No quotations
Bankers' sight	81½
Cable transfers	81 9-16
Commercial, 90 days	No quotations
Commercial, 60 days	No quotations
Commercial, sight	No quotations
Antwerp—Bankers' sight	No quotations
Bankers' cables	No quotations
Commercial, 60 days	No quotations
Swiss—Bankers' 60 days	No quotations
Bankers' sight	5.36½
Bankers' cables	5.35½
Amsterdam—Bankers' sight	40 1-16+1-16
Bankers' cables	40 3-16+1-16
Commercial, sight	39¾
Commercial, 60 days	No quotations
Lire—Bankers' sight	6.31
Bankers' cables	6.30
Greek exchange—Bankers' checks	5.26
Bankers' cables	5.25
Copenhagen checks	25.80
Sweden—Bankers' checks	25.85
Norway—Bankers' checks	25.85
Kronen—Bankers' sight	15.15
Roubles—Bankers' sight	33
Shanghai on London—four months bank credits	2s, 4 7-16d
Hong Kong on London—four months' bank credits.	1s, 10½d
Japan on London—four months' bank credits	2s, 11-16d

Foreign Exchange quotations, to those who have not given it much study, are confusing particularly when such an expression as this is met with: "Lires recovered in a sensational manner. Opening at 6.29 they advanced sharply to practically 6.20." The idea of 6.20 being a higher quotation for lires than 6.29 is rather confusing. But there is really nothing difficult about them, if one only knows for what they stand.

The quotation for sterling exchange in New York is the price in dollars and cents which a Bill of Exchange for £1 sterling will bring in the New York market. The par of exchange is when £1 sterling is equal to $4.86 2-3. When sterling exchange is selling in New York above this rate, it is selling "above the par of exchange." When it is selling below this rate, it is selling "below the par of exchange.'' The quotation for Mark exchange in New York is the price in cents which Bills of Exchange for 4 marks will bring in the New York market. It should not be forgotten that it is the practice to quote Mark exchange always in price of 4 Marks.

The par of Mark exchange is 4 Marks=95½c.

The quotation for Franc exchange, which is the New York exchange on Paris, in the New York market, is the price in **Francs** and **centimes** which a bill of exchange for $1.00 will bring in the New York market. The par of frank exchange is $1.00=5 fr. 15 centimes.

Practically all exchange quotations excepting Francs and Lires are quoted in dollars and cents in the New York market, but francs are quoted in francs and centimes, and lires are quoted in lira and centesimi. 100 centesimi =1 lira and one lira=19.3c. 100 centimes—1 fr., and 1 fr.—19.3c.

On account of this method of determining the exchange, it will easily be seen that the higher the rate of exchange, the fewer will be the francs and centimes which $1 will buy, and the lower the rate of exchange, the more francs and centimes will a dollar purchase.

Swiss exchange is quoted in francs and centimes as above.

Amsterdam exchange is quoted in gulden or florins. Par of florin exchange is one florin or gulden=40.2c.

Copenhagen exchange is in krones or crowns. A krone or a crown= 26.8c.

Norwegian and Swedish exchange is the same as Danish or Copenhagen exchange.

FOREIGN EXCHANGE AND QUOTATIONS IN LONDON MARKET.

London quotations are generally given in two tables, as follows:—

(1) London exchange on the foreign centres and

(2) The rate of exchange in the foreign centre on London.

The first table is generally as follows:—

London rate on
New York—In dollars and cents per pound sterling.
Paris—In francs and centimes per pound sterling.
Berlin—In marks and pfennigs per pound sterling.
Amsterdam—In florins and cents per pound sterling.
Berne—In francs and centimes per pound sterling.
Genoa—In lires and centesimi per pound sterling.
Lisbon—In pence per milreis.
Madrid—In pence per peso.
Petrogad—In pence per rouble.

It should be noted that the London market quotations are always in the foreign equivalent per pound sterling, with the exception of the exchange in places in Russia, Spain, and Portugal. It should also be explained that London very frequently quotes exchange on New York in pence per dollar.

The second table, that is, the rate of exchange on London in:

New York—Is in dollars and cents per pound sterling.
Montreal—In dollars and cents per pound sterling.

Paris—In francs and centimes per pound sterling.
Berlin—In marks and pfennigs per pound sterling.
Italy—In lires and centesimi per pound sterling.
Petrogad—In roubles per pound sterling.
Vienna—In kronen and heller per pound sterling.
Constantinople—In piastres and paras per pound sterling.
Stockholm—In Krones and ores per pound sterling.
Berme—In francs and centimes per pound sterling.
Copenhagen—In Kronen and ores per pound sterling.
Madrid—In pesetas and centimos per pound sterling.
Bombay and Calcutta—In shillings and pence per rupee.
Buenos Aires—In pence per peso.
Hong Kong—In shillings and pence per dollar silver.
Japan—In shillings and pence per yen.
Rio de Janeiro—In shillings and pence per milreis.
Straits Settlements—In shillings and pence per dollar silver.
Mexico—In shillings and pence per dollar silver.
Shanghai—In shillings and pence per dollar silver.

BILL-OF-LADING.

Among the many instruments of credit, one that is most commonly met with in foreign commerce is the Bill-of-Lading. This document is given by shipping companies to those who have handed over goods for transportation from one point to another. Bills-of-Lading should set forth clearly the character and quantity of the goods to be transferred, the charges which the company makes for its services, the points between which they are to be carried, the route taken by the vessel, and all the conditions of liability on the part of the shipping company. The person who is the holder of a bill of lading, is the one which the transportation company recognizes as being entitled to the goods named therein. When goods are shipped "cash against documents" (the principal document in such cases being the Bill-of-Lading), the Bill-of-Lading is made out to the order of the shipper so that he may endorse it to the order of the bank that cashes his draft. When a Bill-of-Lading is so endorsed, the ownership of the goods represented passes to the banker and he has the right to sell them to protect himself in case the draft is not honored by the purchaser. Bankers always take great precaution to protect themselves against fradulent Bills-of-Lading. The quantity and quality of the goods mentioned in the Bill-of-Lading must be fully up to the specified requirements of the purchaser. Unless this confidence between the seller and purchaser is well established, the purchaser is not likely to honor a bill of exchange for the amount equal to the full price of the goods mentioned in the Bill-of-Lading. Many shippers draw a bill of exchange for only a part of the cost of the goods represented in the Bill-of-Lading, and leave the balance to be settled between the parties after the goods have arrived and been examined.

WAREHOUSE RECEIPTS AND DOCK WARRANTS.

Warehouse receipts and dock warrants are instruments of credit which are given by the owners of warehouses, and by Port Authorities to those placing goods with them for storage or custody. Both these documents may be used by the holder as collateral security for advances by his banker. If the goods require to be exported at any time, these documents may be converted by shipping companies into Bills-of-Lading.

PROMISSORY NOTES.

A Promissory Note is an unconditional promise in writing made by one person to another, signed by the maker engaging to pay on demand or at a fixed or determined future time, a sum of money to, or to the order of, a specified person, or to bearer. If a note is drawn payable to the order of the maker, it becomes negotiable only when the maker writes his name across the back, that is, **endorses** it.

A note may be further endorsed or guaranteed by having other responsible people write their names across the back. If the payee, that is, the person in whose favor the note is made, wishes to transfer or use the note, he does so by endorsing it. The maker is the person primarily liable for the payment of a promissory note, but if he makes default each of the endorsers can be sued in the order of endorsement. A joint note is one that is made by two or liable. A Joint Note may also be made to read "We jointly and severally more parties. Where the note reads: '"We promise to pay," they are jointly

liable, but where a joint note reads: "I promise to pay," each is severally promise to pay." In this case the makers are both jointly and severally liable. Presentment for payment must be made within a reasonable time, otherwise the endorsers will be exonerated from liability. The first procedure, in the case of a note being dishonored, is to have it protested, in which case all parties to the note should be notified at once. The ordinary form of a Promissory Note is as follows:

Montreal, August 4th, 1915.

$100.00.

Three months after date I promise to pay to RICHARD ROE or order the sum of ONE HUNDRED DOLLARS for value received, with interest at 6 per cent.

(Signed), JOHN DOE.

I. O. Us.

I. O. U. is an acknowledgment of indebtedness, being abbreviations of the words "I owe you." The following is an example:—

Montreal, August 4th, 1915.

To Richard Roe

It is merely a memorandum of a debt and is not a negotiable instrument.

I. O. U. TEN DOLLARS ($10.00).

(Signed), JOHN ROE.

MORTGAGES AND LIENS.

When title deeds to property or to chattels are deposited as security for a loan, the instrument of credit setting forth the terms of the loan is called the Mortgage. If the loan is not met at maturity, application is made to the courts for an order to foreclose the mortgage, that is, for the right to sell the collateral in order to satisfy the terms of the mortgage. Often a second mortgage is taken on the same property, in which case the first has precedence over the second. Mortgages and liens should be registered at the local registrary office, so as to establish title, and also to protect innocent purchasers.

DEEDS.

A deed, in the common acceptation of the term, is the instrument of credit acknowledging that the person therein named is the owner of the property referred to. Before purchasing title to property, one should examine very carefully to see that all the conditions in the previous transfers of the title had been fulfilled, otherwise the title which he purchases in his deed may not be a good one.

STOCKS.

This instrument of credit is issued by companies and other corporate bodies, that is, associations of persons endowed with a legal personality. Among the oldest corporate bodies known in English law are the guilds or livery companies of London, which began to make their appearance as far back as 1393. Some of these, such as the Fishmongers', the Stationers', the Goldsmiths', the Apothecaries', etc., still exist and continue to enjoy rights and privileges granted them by charter centuries ago. It may be interesting to know that the verdict of the Goldsmiths' Company appended to the annual report of the Royal Mint is a requirement that had its origin in one of these ancient rights. The granting of incorporation to towns and cities is likewise a very old practice, as is also the formation of trading companies, banks, insurance companies, etc., by special Act of Parliament. One of the privileges that has always been granted to companies organized in this way is the right to divide the capital of the company into shares, and to limit the liability of the individual member to the amount of his stock, that is, to the amount paid in to the Company on account of shares and for the amount unpaid on shares subscribed for. The only class of business organization that could be formed without the expense necessary for incorporation by Act of Parliament, was the partnership. But in this case each partner has always been made liable for the whole of the debts of the partnership.

The first Joint Stock Companies Act of Great Britain which made possible incorporation without a special Act of Parliament was passed in 1862. This laid the foundation for British Company law. It has since been amended by the Acts of 1890, 1900, and 1907. This legislation has proven to be one of the most important factors in commercial development and expansion. On the other hand, particularly during the early years after the Act came into force, it was not without many grave abuses. Property and assets of questionable value were often made the basis for the formation of joint stock companies, and by unscrupulous booming, the shares were unloaded on an unwary public, after which the company went into liquidation, and the stockholders were left with their worthless shares without recourse in law against the promoters, who pocketed the proceeds from the sale of these worthless shares. This possibility, however, has been guarded against in the Acts of 1900 and 1907 by regarding the companies to be incorporated as belonging to one of two classes. namely: **Private Companies,** that is, those whose stock is privately subscribed for by a few people; and **Public Companies,** that is, companies with more than fifty stockholders, and particularly those who by advertisement and otherwise invite the public to subscribe for their shares.

By the provisions of the Companies' Act of Great Britain now in force, companies which do not limit, by their articles, the right to issue or transfer the company's shares to more than fifty shareholders and prohibit any invitation to the public to subscribe, must file with a registrar at Somerset House, London, for public inspection a **Prospectus** setting forth all material information concerning the incorporation of the company.

Any person, who has such information as the Company's Act of Great Britain requires shall be given concerning the affairs of a company, has only himself to blame if he loses his money. But in Canada the Joint Stock Companies' Act of neither the Dominion nor any of the Provinces require that all such information shall be given before the shares are offered to the public for subscription, with the result that many companies are formed by promoters whose main object is to get some easy money by the sale of stocks, bonds, or debentures, and also with the result that many good businesses are overcapitalized by the issue of stock "fully paid up," without sufficient consideration in cash or other assets.

In Canada, Joint Stock Companies may be formed under the provisions of the Companies Act of the Dominion, or of any of the Provinces. From the study and examination the writer has made of these Acts and their resultant incorporations, that of the Province of Ontario is the only one which provides any protection to the shareholders. The Companies' Act of Ontario is modelled after the English Act of 1900, and provides for the registration of considerable information with the Department of the Provincial Secretary. But the requirements are not as exacting as are those of the British Act of 1907. The Companies' Act of the Dominion offers little or no protection. In this respect, it is poorer than the Acts of any of the Provinces.

Every company formed under the provisions of a Companies' Act in Canada or Great Britain is known as a "Limited Liability Company," that is, a company in which the liability of each shareholder is limited to the amount of the unpaid portion of the shares he holds. Such companies are compelled by law, except companies incorporated in the Province of Quebec, to always write the word "Limited" after the name of the company. In the United States, the word so used is '"Incorporated," or its abbreviation "Inc." The use of the abbreviation "Ltd." is not a compliance with the different acts, and should not be used.

Many companies in Canada, such as banks, insurance companies, trust companies, railroads, and so forth, received their incorporation by special Act of Parliament. These do not require the affix "Limited." In some cases, such as that of banks, the shareholders are liable for double the amount of the shares they hold. One of the declarations set forth in the charter of every company whether formed under the Companies' Act, or otherwise, is the number of shares which the company is authorized to issue and the amount of each share. Ordinarily a share is for $100, but it may be for $50, $5, or $1, or, as a matter of fact, for any amount desired by the incorporators. The amount so fixed is known as the par value of the share. After incorporation, or by the application for incorporation (this is not often done), these shares may be divided by the by-laws of the company into preferred and common, or into different grades of preferred, or different grades of common, or both. Or the preferred shares may be made cumulative, that is, all unpaid interest accumulates and must be paid before any interest can be paid on the common. Or the interest to be paid on the preferred, or any grade of preferred, may be limited. In this case all the remaining dividends after this limited interest has been paid on the preferred, belongs to the common shares.

But as regards the payment of interest, all good Companies Acts explicitly stipulate that no interest may be paid on any grade of stock unless it is earned, and that, in any case interest must not be paid out of capital. Unfortunately this provision is not always respected as it should be. Interest is paid occasionally either deliberately, or by so manipulating the accounts that they show a profit on the books when none has been earned. This is frequently done to keep up the price of the stock in the market, or to boom it to a fictitious price. A limited liability company may go on forever without paying interest on its stock, either common or preferred, as it must do if it does not earn any, or if it does earn dividends and the directors do not declare them.

When the shares of a company are selling for more than their par value, they are said to be selling above par, and when the market price is less than the par value, they are said to be selling below par. The value of stock should always depend upon the power of the company to legitimately earn and regularly pay dividends. But frequently stock sells for more than it is worth or for less than its value on account of the manipulation by those who are in control of the market for it. In purchasing stock, delivery of the certificate is not sufficient. The purchaser should always see that a proper transfer is made on the books of the company. These books are always closed just before a dividend is paid, and no transfers are made during these few days until after the dividend has been distributed. During these days, the stock sells in the market "ex-dividend," that is, the new purchaser would not be entitled to the dividend. Only those receive dividends whose names appear on the books of the company as bona fide holders of the stock at the time the books are closed.

BONDS AND DEBENTURES.

Bonds and debentures are a form of mortgage issued by a company, a municipality, or a government, on the security of its assets. If the interest on bonds or debentures is not met when it becomes due, the assets of the whole company, or the particular assets that had been pledged as security, may be seized and sold to satisfy the accrued interest together with the face value of the bonds or debentures which become payable immediately. In this case the company is said to go into liquidation. Instead of selling the assets immediately, the bondholders may arrange to put the company in the hands of a liquidator or receiver who may sell them gradually, so as to get as much as possible out of them, or the liquidator or receiver may operate the company in the hope of getting it back on its feet.

Unfortunately, the method of raising money by issuing bonds and debentures has been resorted to to such an extent that the earning power of many companies is completely absorbed by its bond or debenture obligations and nothing is left for the stockholders.

Bonds are known by several names according to their character, or according to the particular class of security pledged. There are first, second, or third Mortgage Bonds, Equipment Bonds, Land Grant Bonds, Collateral Trust Bonds, Prior Lien Bonds, Income Bonds, and Sinking Fund Bonds.

The instrument of credit created by municipalities for the purpose of raising money is generally known as Debentures or Sinking Fund Bonds. In the case of Sinking Fund Bonds, provision is made, by the By-law authorizing such bonds, for their payment, generally by setting aside a certain amount each year as a Sinking Fund out of which the bonds are to be retired at the rate of a certain number at stated periods. This is the most desirable and satisfactory manner of raising money for municipal purposes. The instrument of credit used by governments are known as either Bonds or Debentures. The value of a Bond or Debenture depends upon the value of the property mortgaged and the extent to which it is mortgaged. Bonds of a company, municipality or government are sometimes guaranteed by a second party, thereby constituting a liability on the part of issuers and guarantors.

In 1914 the Province of Quebec made provision for companies to make a bond issue secured by a Trust Deed, covering its movable property. Heretofore a bond issue could only bind immovable property, there being nothing in the Province of Quebec equivalent to the Chattel Mortgage in other provinces. A bond which is not based upon a Trust Deed is sometimes called a "Naked Bond." Such a document is really not a bond.

STOCK MARKETS.

One of the oldest organised Stock Markets (that is, an established market where stocks, bonds or debentures are listed, and where they may be bought or sold at any time) in the world is the Bourse of Paris. The operators on this Bourse consist of two distinct sets or branches of stock dealers, namely, sixty official brokers or agents de change, generally known as the parquet, appointed by the French Government, and who alone are admitted to the inner business ring of the Bourse; and second, the great mass of other members or brokers known as "coulisse." The general practice on the Bourse is to settle accounts once a month, that is, the business of buying and selling eases up once a month to enable all brokers to settle up with one another the balances due on the month's trading, to close their accounts, and to collect from their customers. This generally occupies a period of about six days. But while the monthly settlement is the rule, many dealers settle their accounts more frequently, even as often as daily. A seller may be compelled to deliver stock at any time.

At Berlin, the Bourse or stock exchange is not under government control, neither is it closed to all others except members. Anyone may act as broker, either with or without a license. The settlement occupies three days and occurs once a month.

The organized stock market of London is situated immediately to the east of the Bank of England, and faces Throgmorten Street, where many brokers, who are not members of the Exchange, buy and sell unlisted securities on the street just as they do on the curb in Broad Street, New York. All members of the London Stock Exchange are either brokers or jobbers. It is contrary to the etiquette of the Exchange for brokers to deal with brokers. The broker is simply a middleman between his clients and the jobbers. A commission is charged by each, which makes stock dealing rather expensive.

Settlements are fortnightly and last for three days. The first day is known as continuation or ''contango'' day. On this day brokers require to know whether clients wish to pay and take delivery of purchases or require accommodation for further account. In the event of requesting the latter, purchasers must pay interest at a fixed rate for the particular securities to be carried. This rate is governed by the rate charged by bankers for call loans. Many of the other large cities of Great Britain possess Stock Exchanges.

The Stock Exchanges of America, while much younger than any of those above mentioned, transact a business considerably larger, proportionately to the size of the community in which they are situated. The speculative feature of the Stock Exchanges of both the United States and Canada is very pronounced. The most important stock exchange in America is that of New York, but each of the other large centres are provided with one of their own. In Canada there are three—Montreal, Toronto and Winnipeg.*

The mode of conducting business on all Stock Exchanges in the United States and Canada is much the same. They are all privately owned exchanges, on which no one may trade unless he is a member. A membership is generally known as a ''seat.'' The price of a seat varies according to the demand for membership, and the size and importance of the Exchange.

A Stock Market or a Stock Exchange, is nothing more than a large room, on the floor of which brokers buy and sell. Through the custom of buying and selling a particular class of stock in a particular section of the room, the floor of the house becomes dividend into sections; the railroad section, the industrial section, etc. Situated at convenient places around the room are the private telephones of members. The room is also provided with telegraphic communication and other conveniences for the rapid execution of orders. The difference of a few minutes may mean a considerable loss to a customer. An Exchange is always provided with a rostrum, on which sits the chairman elected periodically by the members, whose duty it is to maintain order during business hours. On a busy day, when the New York Exchange is crowded and thousands of brokers are jostling, gesticulating, and shouting their bids and offers, the Exchange resembles a bedlam. But this does not seem to interfere with the capacity of each broker to successfully transact his business. A man's word, or a nod of the head is all that is required to bind a transaction involving several thousands of dollars.

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* See Chapter VI. for list of members of Montreal, Toronto and Winnipeg Stock Exchanges.

Speculators who buy stocks in the hope of being able to sell them at a higher price are generally known as "bulls"; while those who sell stocks short, that is, sell for delivery at a certain future date in the hope of being able to buy on that date to fill the order at a lower price than they sold, are called "bears."

When buying or selling for speculation, the customer seldom, if ever, buys the stock outright and insists upon delivery. He generally buys or sells on a margin of ten or twenty points, that is, if he bought C. P. R. at, say, $150, he might pay his broker only $10 a share. If the stock went up and he sold at $155, his broker would return to him the $10 which he had deposited together with the $5 representing his profit on the transaction. Of course from this $15 would be taken the broker's commission and the interest on the remaining $140 a share for the period during which the broker carries the stock. Had the market gone down after he had bought at $150 and he had sold at $145, the broker would return him only $5, less, of course, the brokerage and interest. This is known as buying and selling on margin. The margin of $140 a share above-mentioned would be put up by the broker and is generally loaned to him by the banks and other financial houses from their current surpluses. These temporary loans to stock brokers are known as "Call Loans" because the loan is made on the understanding that it may be called up by the bank or financial house at any time without notice. A low rate of interest for call money generally means increased activity on the stock market. Call Loans are always made on the collateral of recognized and well-established securities.

INSURANCE.

For the purposes of business, the words "insurance" and "assurance" are synonymous. Either signifies a contract whereby, for a stipulated consideration, one party undertakes to indemnify or guarantee another having an insurable interest against loss by certain specified risks. The party who undertakes to pay in the case of loss is termed the **Insurer**; the danger against which he undertakes is called the **Risk**; the person protected is called the **Insured**; the sum paid for the protection is called the **Premium**; and the contract itself is called the **Policy**.

For many years insurance was regarded as a form of gambling. In fact it was from this propensity in the human race that it took its rise. But as the results from experience accumulated and the science and mathematics of chance developed, and more particularly as the needs of business required that the possibility of a loss in the event of certain contingencies arising be minimised, insurance in all its forms settled down more and more on a broad basis until to-day it is not only sound and legitimate, but absolutely necessary to many important branches of business activity.

Insurance as it is conducted to-day is based upon a science which deals with the equitable distribution, among all the members of a community, of the loss, which any one member may suffer as a result of a contingency arising over which he has no control. The position has thus been reversed, and to-day the person who assumes obligations to his fellow-members without insuring himself against loss as above described is taking a risk that brands **him** as the gambler, and not the person or firm that offers to insure his risk. On the other hand, the person who insures to cover his loss in the event of a contingency arising over which he has no control and who does not take all reasonable precautions to avoid or prevent this contingency arising, or who deliberately encourages its arising, is a criminal of a dangerous type.

MARINE INSURANCE.

"It has ever been the policy of this nation to encourage trade and policies of assurance have existed time out of mind." This, written in the time of Queen Elizabeth, would indicate that the custom of covering the risk of vessels and their cargoes was one of the oldest forms of insurance. Until about the middle of the seventeenth century the business of placing marine risks in England was largely in the hands of the Lombards. But about that time a number of English merchants, who were in the habit of meeting in a coffee house, kept by one Edward Lloyd, decided to accept risks on their own account. This was the beginning of the now famous institution known as Lloyd's, a corporation whose members continue to underwrite either directly or indirectly approximately one-half of all the marine risks placed in Great Britain and which is recognized throughout the world as the greatest bureau of marine information.

Lloyd's, as a corporation, does not underwrite a risk any more than the Montreal Stock Exchange buys or sells shares on its own account. But just as the Montreal Stock Exchange requires that its members shall be of good financial standing and capable of meeting the obligations which each assume and that in case of insolvency the value of the member's seat on the exchange goes to meet his liabilities, so Lloyd's makes a careful examination of each applicant for membership to the corporation and requires from each of its underwriting members a deposit of at least £5,000 as a guarantee that his underwriting obligations will be met. In addition to this deposit, of course, the private means of an underwriter is also at stake and can be seized to satisfy the risks he has underwritten. Lloyd's is, in fact, a great market for marine insurance where individual members conduct business on their own account and so long as they conform to the rules of this market they are free to follow their own views.

The procedure at Lloyd's is as follows:— The business of placing a risk is entrusted, by those seeking the insurance, to a broker who makes out what is called "a slip," which sets forth a complete statement of the facts—all the facts concerning a risk must be set forth clearly and nothing should be concealed. This slip is presented to individual members, each of whom, or at least those who are willing to assume part of the risk, underwrites his name and the amount of the risk he will take. When the whole of the amount has been taken, the broker writes out the policy and presents it for the signature of those who signed the slip.

Lloyd's is also an immense organization for the collection and distribution of marine intelligence, which is published daily in "Lloyd's List" or weekly in "Lloyd's Weekly Shipping Index." Other publications put out by Lloyd's are: "Lloyd's Calendar," "Lloyd's Book of House Flags and Funnels," "The International Code of Signals," and "Signal Letters of British Ships." The information published in the above-mentioned periodicals is supplied by Lloyd's agents who are to be found on every coast in the world and who by letter and telegram report the arrival and the departure of, and casualties to, vessels within their districts, as well as all other kinds of marine information.

Another important organization closely affiliated with Lloyd's is "Lloyd's Registry of Shipping." This Society surveys, for classing purposes, all ships that come to it. The Society maintains surveyors all over the world. The Register which it issues yearly to its subscribers, and which is constantly being brought up to date, is an invaluable work of reference, not only for underwriters when taking risks but also for all interested in shipping as well as in marine insurance, who, by reference to its pages can at once acquire the latest information regarding the standing, age, and state of repair of any ship classed by the Society.

At Lloyd's is also kept a "Captain's Register," giving the record of every master in the mercantile marine. It also maintains an "Inquiry Office" where the relatives of crews or passengers may obtain, without cost, information concerning the movements of vessels in which they are interested.

But it is a mistake to believe, as so many people do, that all marine risks are underwritten at Lloyd's. In Great Britain, as in every other country, there are many joint stock companies that are not members of Lloyd's Corporation, that write large amounts of marine insurance. In this country there are two purely Canadian companies which compete for business with the agents of some fifty or sixty marine insurance companies of the United States and Great Britain.

The agents and companies underwriting marine risks in Canada are not required to take out a Dominion license as are those doing other classes of insurance business; neither are they required to make returns to the Government. It is, therefore, impossible to ascertain the amount of marine business done in Canada.

OTHER FORMS OF INSURANCE.*

All insurance companies, other than those doing a marine business, are compelled to make annual reports to the Insurance Department of the Government at Ottawa. They are also required to deposit, with the Receiver-General, as a guarantee that they will meet their obligations to their policyholders, a considerable portion of their assets. The number of companies writing different classes of insurance, together with their premium receipts from business placed in Canada for the year 1913, was as follows:—

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* For list of Insurance Companies doing business in Canada see Chapter VI.

	Number of Companies.	Canadian Companies.	British and Colonial Companies.	United States and other Companies.
Fire	82	$5,099,298	$13,138,597	$7,508,052
Life	60	24,783,718	1,905,483	11,969,392
Life Assessment	4	2,404,200	None.	None.
Accident	30	1,129,844	594,337	475,704
Guarantee	18	181,719	177,294	286,611
Plate Glass	18	73,079	50,405	101,345
Steam Boiler	7	94,705	None.	52,964
Burglary	7	46,296	1,264	28,020
Sickness	34	872,686	119,259	143,485
Inland Transportation	..	4,311	85,938	49,991
Employers' Liability	..	862,854	2,003,356	650,548
Title	1	351	None.	None.
Live Stock	2	89,291	43,147	None.
Automobile	21	131,509	88,861	342,834
Sprinkler Leakage	7	None.	452	41,934
Hail, Weather and Tornado	17	397,398	1,287	48,997
Totals		$36,171,250	$18,209,680	$21,699,877

The value of the securities held by the Receiver-General at the end of the same year was as follows:—

Life	$79,906,061.26
Fire	13,709,207.28
Fire and miscellaneous	10,092,717.64
Accident, guarantee, plate glass, etc.	4,610,610.40
Total	$108,318,596.58

A few of the above-mentioned classes of insurance require some special mention, although the principles underlying each and their methods of operation are exceedingly simple and easily understood.

FIRE INSURANCE.

An insurance policy to cover the risk of loss by fire may be placed either on a building or its contents. When it is placed on the building, the rate of premium required will depend upon; (1) the quality of the building, that is, the kind of material it is made of and the manner in which that material has been put together; (2) its surroundings, that is, the class of buildings with which it is in close proximity; (3) the quality of the fire protection of the municipality in which it is situated; (4) the provision made in the building for the detection and extinguishing of any fire that might arise, that is, whether or not the building is supplied with such appliances as fire alarms and sprinklers; and (5) the use to which the building is to be put. The rate of premium required to cover a risk placed on the contents of a building will depend; (1) on the class of building in which these contents are; and (2) the nature of the contents themselves.

In determining the premium as above-mentioned, fire underwriters follow a system which assumes that the net rate, that is the rate necessary to cover the risk alone, for an average risk is a certain amount. From this they subtract certain fixed amounts for every feature that improves the risk and add certain fixed amounts for every feature that increases the hazard. To this net premium is added a percentage to cover expenses. The relation which the expenses of fire insurance companies bear to their total income may be seen from the following, which has been compiled from the 1913 returns of Canadian companies:—

Income from all sources, principally premiums	100%
Payments for losses	57.88%
General expenses	36.77%
Dividends to stockholders	4.82%
Total paid out	99.47%
Surplus	.53%

Fire insurance companies are generally known as tariff and non-tariff companies. Those belonging to the group known as tariff companies charge uniform premiums and for the purpose of fixing this premium on the risk assumed on each building and its contents, divide the country into sections. In each of these sections the associated companies maintain a staff of clerks and inspectors whose duty it is to make maps and drawings of the buildings, cities, towns and villages in their respective sections and to systematically work out the premiums to be charged on each risk. The following are the different associations covering the respective sections: Nova Scotia Board of Underwriters covers the Province of Nova Scotia; New Brunswick Board of Underwriters covers the Province of New Brunswick; Canadian Fire Underwriters Association covers the Provinces of Ontario and Quebec; Western Canada Fire Underwriters Association covers the Provinces of Manitoba, Alberta and Saskatchewan; Mainland Board of Underwriters covers the Pacific Coast.

A tariff company may be a member of all these underwriters' associations or only of such of them as covers the districts in which it does business.

It will readily be seen what a great amount of duplication of work there would be if each company attempted to do this work by itself. Such associations also make for uniformity of rates and prevents the cutting of premiums.

Non-tariff companies are free to charge such rates as they consider sufficient to cover the risk insured and to make such reductions as they find necessary to secure the business.

LIFE INSURANCE.

The first organized attempt to insure lives in England is marked by the birth of the Amicable Society, which received a Royal Charter in 1706 for the purpose of simply raising a fixed contribution from each of its members, out of the proceeds of which, was to be distributed a certain sum each year among the relatives of deceased members. All persons between the ages of twelve and fifty-two were admitted and each paid an equal yearly contribution. In 1734 the Society undertook to guarantee that the amount to be paid to relatives at the death of a member would not be less than £100. It was not until 1807 that the Amicable Society began the practice of rating new members "according to the age and other circumstances."

But the Amicable was not the first to make this most essential step in the development of life insurance. In 1762 the Equitable was formed. From the outset, this company possessed all the essential features of present day life insurance. It offered policies of fixed sums on single or joint lives and for any term. The premiums were regulated according to age and only healthy lives were accepted. Provision was made for the investment and accumulation of funds and a basis for the distribution of surpluses was established. The whole scheme as it was put into operation was not without defects, but these were remedied as experience suggested, and, while many important improvements have been made since, the principles, as introduced by the Amicable, remain the same.

In these early years one of the most difficult things to determine was the premiums that would be adequate at the different ages. There existed no records from which to determine the number of persons who, out of the given number born or living at a particular age, live to attain successive higher ages, and the number of those who died in the intervals. In fact it was not until the early 70's of the last century that mortality tables were compiled. Those formed at that time are still in use. They are known as the mortality tables of the Institute of Actuaries as follows:—

Table Mm.—Healthy lives, males.

Table Hf.—Healthy lives, females.

Table Hmf.—Healthy lives, males and females.

With these tables it was an easy matter to ascertain what a person at a given age would require to pay annually so that his accumulations, invested at a certain rate of interest, would equal the amount of his insurance at the end of the period when, according to the tables of mortality, he might be expected to die. The number of those insured who die prematurely, about equal those who live and continue to pay their premiums beyond the expected period. The tables were made high enough so that if they erred at all they would err on the right side. As a matter of fact, the experience gained by insurance companies since the introduction of these tables, show that the net premiums are about 30 per cent. higher than the mortality on insured lives would require. This is one of the most important sources of surpluses in life insurance.

The following analysis of a life insurance premium will give an idea of how it is made up. The sources of profits are also given, as well as the amounts earned from each source by all Canadian companies during the year 1905. The examination of the affairs of Canadian companies by the Royal Commission for that year gives the information that enables us to compile these figures. They cannot be compiled from the annual reports made to the Insurance Department. The figures given refer to the page in the report from which these returns have been compiled.

PREMIUM	BASIS AND COMPOSITION OF PREMIUM.	REVENUE AND SOURCES OF PROFIT	ACTUAL RETURNS FOR THE YEAR 1905.
A Life Insurance Premium may be divided into two distinct parts: 1st. The net premium, or the annuity, which, at 3½% interest, will provide the amount of the risk at death, or at the end of the period stated in the policy. 2nd. The loading or the amount which provides for the expense of getting and maintaining the policy.	**Net Premium** is based on two considerations: 1st. A table setting forth the expectation of life at all ages. There are a number of tables in use. But the one used by Canadian companies is the Hm. (Healthy males) Table of the Institute of Actuaries of Great Britain. 2nd. The rate per cent., which is assumed will be earned on investments.	1. **Surplus from the provision for mortality.** From experience it is found that the Hm. table is about 30% higher than necessary. Hence every year there is a surplus from this item. In 1905 the savings from this item were 31½% of the amount set aside under the Hm. table (C. R. 172)...	$1,388,354.58
		2. **Surplus from interest rate.** Although the rate assumed is 3½%, as a matter of fact, the investments of the companies earn a larger rate than this... In 1905 the rate earned on the assets was slightly under 4½% (C. R. 170).	423,859.02
	Loading is an amount arbitrarily settled upon, which is considered sufficient to meet all expenses. In the premiums on all policies in Canadian companies the loading amounts on an average to about 22% of the premiums.	3. The total amount of the loadings for expenses on all premiums (C. R. 174).......	3,615,463.96
	In addition to the above, the following are the other sources of profits.	4. The amount retained by the companies from the reserves released by the surrendered and lapsed policies. The total is not given but the amount is well over....................	500,000.00
		5. Gains from sales or maturities of securities (C. R. 170).......	599,887.00
		TOTAL GROSS SURPLUS.......	$6,527,564.56

Insurable Lives.—Any person or persons may insure his or her own life or their joint lives; or one person may place insurance upon the life of another, in whom he or she has an insurable interest either by reason of relationship or as a protection for a debt or other financial or business obligation. A person in whose favour a policy is made is known as the **beneficiary.**

If the life to be insured is healthy and has a satisfactory family history the ordinary premium is sufficient to cover the risk. But, if either of these are not up to the standard or if the person is engaged in extra-hazardous work, a premium proportionately higher is charged, if the applicant is not rejected.

Term of Policy.—A life insurance policy may be made to mature at death whenever that may occur, as in the case of a whole-life policy; or it may be made to cover the risk of death during a limited period; as in the case of temporary insurance or endowments. In the latter case if the insured survives to the end of the endowment period, the full amount of the policy is paid to the insured.

Payment of Premiums.—The payment of premiums necessary to cover a risk or provide for an endowment may be made in a single payment, or it may be made in instalments of equal annual, semi-annual, quarterly, monthly, weekly, or even more frequent payments. The great amount of ordinary life insurance is paid for on the annual premium plan, while those, on what are commonly called ''industrial insurance,'' are made on the weekly payment plan.

Payment of Policy on Maturity.—The amount stipulated in the policy to be paid at maturity either as the result of death or at the termination of the endowment period, may be paid by the insurance company in a single sum, or in an annuity for a stipulated period, or for the lifetime of the beneficiary or the insured in the case of endowments.

Participation in Profits.—A policy may be taken with or without profits. The premium in the latter case is generally lower than in the former. A policy with profits, means that the policy holder is entitled to participate in whatever surplus the insurance company may save from the various sources already described. These surpluses may be distributed among policy holders annually, quinque annually (every five years), every ten years,—fifteen years,—twenty years, etc. The period at the end of which the surplus is to be distributed is often referred to as the **Tontine** period (so called after Tonti, an Italian, who invented the principle of payments with the benefit of survivorship, that is, the principle of paying surpluses only to those who survive or live to the end of the stipulated period). The policy holder generally has the option of receiving his portion of the surplus in cash or having it applied to a reduction of his premium, or he may receive it in the form of ''bonus addition,'' that is, as an addition to the amount of his insurance.

Surrender Values.—After a certain number of premiums have been paid, if a policy holder desires to drop his insurance, he has the right to have refunded to him a portion of the reserve on his policy. That is, he is entitled to a portion of the accumulated net premium, which the Government requires shall be kept securely invested. Of course he only gets a fraction of this reserve, generally about two-thirds. The remaining third, together with any rights he would have as regards surplus, is retained and distributed among those who continue their policies. The surrender value makes the policy a valuable collateral, on which a loan may be had by the policy holder either from the insurance company, or from a bank, or other corporation or person. The surrender value may also be used to keep the policy in force when the policy holder is unable to meet his premiums.

Kinds of Policies.—There are as many kinds of policies as there are combinations of above-mentioned features. An intending insurer may take out a policy for any term, either with or without endowment. He may have his premiums paid in one of a half-dozen different ways, and by selection, have the policy mature either at a certain period or at death. He may take it without profits or if he decides to select a participating policy, that is, one in which he will participate in the profits, he may have his profits in one of the several different ways. The most satisfactory kind of life insurance for ordinary cases is a life policy on a limited payment plan, that is, a life policy which will be fully paid up at the end of, say, twenty years. This class of policy is ordinarily known as the Twenty-Payment Life. If he decides to participate in profits, he should select the annual distribution plan. It is the most satisfactory from every point of view.

How to Select a Life Insurance Company.—On the principle that "one cannot eat his pie and have it" to share with others, it is reasonable to assume that the company which expends for expenses and other outlays the largest proportion of its income will have the least surplus to divide among its policyholders. It must not be forgotten that the Government compels all life insurance companies to keep intact sufficient of its receipts to meet the obligations assumed on all policies issued. If, therefore, a company expends for the purpose of getting new business, or for management or in any other way, more than its surplus, it not only has no surplus for its policy holders, but it is required to call up more capital or make good the deficit in some other way. The very best test which intending insurers can apply in their efforts to select a good company is to compare companies by the percentages which their whole expenses are to their total premium income. This comparison is not absolutely fair in all cases. But the error, where there is any, is too small to materially affect the test. Moreover, it is the only reliable test that can be made from the information regarding the business of life insurance companies, which the public is able to procure from the Annual Report issued by the Government Insurance Department at Ottawa.*

ANNUITIES.

Many life insurance companies sell annuities, either immediate (that is, when annual payments to the annuitant begin at once) or deferred (that is, annual payments to begin at the end of a stated period). Annuities offered by life insurance companies are mostly intended for beneficiaries under any form of life insurance policy or for the holders of endowment policies. Such persons have the option of converting the amount received as a result of a maturing policy into an annuity instead of taking it in a single payment.

GOVERNMENT ANNUITIES.

In 1908 the Dominion Government, recognising the need for encouraging people of limited means to provide an income for themselves during the latter years of their lives when their earning power had disappeared, opened a Department for the selling of annuities which would begin when the person has reached the age of either 55 or 60 years, as the annuitant chose to elect. The price of these Government annuities are exceptionally low as the whole cost of the department is borne by the Government. Moreover these annuities cannot be attached for a debt or sold by the annuitant. In the event of the annuitant dying before the age at which the annuity begins to be paid, the amount which he or she has paid into the Government, with compound interest at 3 per cent., will be returned to his or her heirs. These annuities may be bought by the annuitant or by any other person for him or her; or they may be paid for partly by the annuitant and partly by his or her employer or some other person. Furthermore, they may be bought, partly by a single payment and partly by periodical payments. For example, a person beginning at the age of 20 with a cash payment of $10.00 and continuing to pay 25c a week, and adding an additional $10.00 every five years, would receive $151.96 every year after he had attained the age of 60 years. If the employee paid 25c a week and the employer $10.00 a year, the annuity at the age of 60 would be $231.28; and, if the annuitant died at the age of 50, his heirs would receive $1,111. Should the weekly payments not be continued for the full period such an annuity will be granted as the payments made will purchase. Payments weekly or otherwise are received at any Post Office. The annuities are to be paid by the Government quarterly. In the case of invalidity or disablement the annuity begins at once, otherwise not before the age of 55 is reached. Every person should be encouraged to take advantage of this excellent means of making provision for old age. It is simple, cheap and beyond the reach of the annuitant or his creditors. Rates and information concerning Government annuities may be had at any Post Office in Canada or by application direct to the Department of Government Annuities, Ottawa, Ont.

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* For percentages of expenses to pension income of each company doing life insurance business in Canada see Chapter VI.

ACCIDENT AND SICKNESS INSURANCE.

Policies covering the risk of accident or sickness are generally issued by a different class of insurance companies from those issuing life policies, although the accident and sickness policies, in most cases, are made to cover the risk of death by accident or as the result of certain diseases. The premiums are always proportionate to the number of accidents and diseases which the policy is made to cover; the amount to be paid in the case of death by either; and the amount to be paid in the case of any disablement that may result, such as the loss of a leg, an arm, a finger, an eye, &c. The premium is also proportionate to the allowance made for any surgical operation necessary as the result of an accident, for medical and hospital attendance and the weekly indemnity paid to the injured or sick during the time he or she is away from his or her regular employment.

EMPLOYER'S LIABILITY AND WORKMEN'S COMPENSATION.

For many years the laws of most industrial countries have compelled employers to compensate their workmen for injuries suffered as the results of accidents while at work, particularly when such accidents are not the result of contributory negligence on the part of the workman. To cover the risk of such liability many employers have been in the habit of taking out a policy known as Employer's Liability Insurance. The premiums paid in such cases are always proportionate to the exactions of the workmen's compensation laws, to the hazard of the employment and to the conditions maintained by the employers in their efforts to avoid accident.

This arrangement has not always worked out to the satisfaction of either the employer or the employee, particularly where the insurance companies, in their efforts to avoid payments, have expended large proportions of their premium receipts for legal expenses. This dissatisfaction has produced a disposition on the part of large employers of labour and on the part of Governments to make provision for compensation to injured workmen in other ways. One of the most recent moves along this line was made by the Province of Ontario, whose Workmen's Compensation Act came into force on the 1st of January of this year.

The administration of the Act is entrusted to a Commission who look after the collection of the premiums from employers and who also apportion the amount of compensation to be paid employees for injuries. This Act does not cover all employments in the Province, but it applies to most, chief among which are—manufacturing, building, construction, lumbering, mining, transportation, navigation, the operation of public utlities, &c. Employers provide all the funds necessary and pay in annually to a central fund the amount determined according to a carefully worked out schedule. In many other places the employees contribute something, but in Ontario no part is exacted from them. The compensation for injury is payable irrespective of any question of negligence on the part of the employee. The only cases in which compensation is not payable are where the accident is contributable solely to the serious and wilful misconduct of the workman and does not result in death or serious disablement. Compensation is also paid for certain industrial diseases.

Provisions are made in the Act for employers to form themselves into Associations for the prevention of accidents. These may make rules and, when such have the approval of the Commission and of the Lieutenant-Governor-in-Council, are binding upon all employers in the class. Such Associations may appoint Inspectors whose salaries are apportioned by the Commission among all employers in said class.

Any information concerning this Act may be had on application to the Workmen's Compensation Board, Normal School Buildings, Toronto, Ont.

FIDELITY GUARANTEE INSURANCE.

This class of insurance covers the risk which employers run as a result of any violation of trust on the part of managers, clerks, travellers or collectors. Such insurance is required particularly in the case of Government and Municipal officials, trustees, liquidators and receivers. The rate of premium depends upon the past history and character of both employers and employees and the system of supervision under which the employees work. The amount of the policy may be limited to different stated amounts for each employee or it may be for a single amount, as in the case of what is known as a "floating policy," which insures the employer against any loss committed by any one employee or any number of them.

BOILER INSURANCE

This class of insurance covers the risk of damage by the explosion of a steam boiler, and such damage includes injury to workmen or other persons and also damage to surrounding property. Companies issuing such policies generally employ trained experts who regularly inspect the boilers insured.

Policies covering the risk of injury to persons and damage to property by elevators are very similar to those of Boiler Insurance Companies. Policies covering damage by leakage of Sprinkler Systems are also similar.

BURGLARY INSURANCE.

Such policies cover the risk of loss by burglary or theft by servants.

PLATE GLASS INSURANCE.

Such policies cover the risk of breakage from all causes except fire, which risk is generally covered by the fire insurance policy.

LIVE STOCK INSURANCE.

Such a policy may be made to cover the risk of loss by death or injury to a single animal or to the entire stock on a farm.

HAIL, WEATHER AND TORNADO INSURANCE.

Such a policy covers the risk of loss to growing crops. The insurance is based upon the acreage covered by the crops.

AUTOMOBILE INSURANCE.

Such a policy may insure against the risk of loss by burglary, fire or accident; or it may be made to provide compensation for injuries to the owner, driver or other persons.

TITLES INSURANCE.

Such a policy covers the risk of loss by reason of a title to property being defective. Companies issuing such policies employ experts who search the titles to be insured and ascertain all weak or doubtful points concerning them.

Chapter IV.

MARKETABLE COMMODITIES

AND

CANADIAN PRODUCERS*

A

ABACA.—The Spanish name for Manila Hemp.

ABIETINE.—A hydrocarbon distilled from the Pinus Sabiana of California. It is used as a substitute for benzine.

ABRASIVES.—Any very hard substance that may be used for sharpening tools, smoothing surfaces or wearing down materials are called abrasives. They require to be a harder substance than the material to be sharpened or worn down. There are two kinds of abrasives, viz.; the natural products, such as corundum, emery, garnet, limestones, infusorial earth, tripoli, millstones, whetstones and pumice; and the artificial products such as carborundum, which is a silicon carbide produced by excessive heat generated by electricity and alundum made from aluminum.

ABRASIVES.

Atlantic Grindstone, Coal & Railway Co., Lower Cove, N.S.
Carborundum Co., Niagara Falls, Ont.
Dorchester Stone Works, Ltd., Beaumont, N.B.
Manufacturers Corundum Co., Ltd., Craigmont, Renfrew Co., Ont., and Toronto, Ont.
Miramichi Quarry Co., 10 Richmond Sq., Montreal, Que.
Norton, Co., Chippawa, Ont.
Read Stone Co., Ltd., Sackville, N.B.

ACAJOU.—A fragrant species of mahogany sold in logs about 16 feet long.

ACETONE.

Merck & Co., Montreal.

ACETYLENE.—A colorless carbon-hydrogen gas, with a peculiar unpleasant odor.

ACETYLENE.

Blaugas Co., of Canada, Ltd., The, Montreal, Que.
Commercial Acetylene Railway Light and Signal Co., Toronto, Ont.
Compressed Gas Co., Ltd., Vancouver, B.C.

ACIDS.

Cowan, John & Co., Limited, Montreal, Que.
Grasselli Chemical Co., Ltd., Hamilton, Ont.
Nichols Chemical Co., of Canada, Ltd., The, Montreal, Que.
Victoria Chemical Co., Ltd., Victoria, B.C.

ACID, Acetic.

Standard Chemical Iron and Lumber Co. of Canada, Limited, Toronto, Ont.

ACIDS, Carbolic.

Dominion Tar & Chemical Co., Ltd., Montreal, Que.
Grasselli Chemical Co., Ltd., Hamilton Ont.

ACIDS, Muriatic and Nitric.

Grasselli Chemical Co., Ltd., Hamilton, Ont.
Nichols Chemical Co., of Canada, Limited, The, Montreal, Que.
Victoria Chemical Co., Ltd., Victoria, B.C.

ACIDS, Sulphuric.

Dominion Iron & Steel Co., Ltd., Sydney, N.S.
Grasselli Chemical Co., Ltd., Hamilton, Ont.
Metal Chemicals, Limited, Welland, Ont.
Nichols Chemical Co. of Canada, Ltd., The, Montreal, Que.
Victoria Chemical Co., Limited, Welland, Ont.

ACONITE.—The fruit and leaves of Aconitum Napellus, imported for medicinal purposes. The alkaloid aconitine is a very powerful poison.

ACROIDES.—A fragrant yellow resin obtained from the Xanthorrhea Hastilis of Australia, and used in varnishes and for the manufacture of picric acid.

ADDING MACHINES.

Burrows Adding Machine Co., Montreal.

ADZES.

Campbell Bros., St. ohn, N.B.
Canada Axe & Harvest Tool Mfg. Co., Limited, Montreal, Que.
Fowler, Josiah, Co., Ltd., The, St. John, N.B.
Hills, Allan, Edge Tool Co., Ltd., Galt, Ont.
Mann Axe & Tool Co., Ltd., St. Stephen, N.B.
Roxton Tool & Mill Co., Ltd., Roxton Pond, Que.
Welland Vale Mfg. Co., Ltd., The, St. Catharines, Ont.

AGATEWARE. (See Enamel Ware.)

Davidson, The Thos., Mfg. Co., Ltd., Montreal, Que.
Sheet Metal Products Co., of Canada, Ltd., Toronto, Ont.

AGAR-AGAR.—Marine fuci used in China as food and to stiffen fabrics.

AGARI.—Certain fungi used in dyeing and as styptics.

AGAVE.—A genus of plants chiefly growing in Central America. **(See PULQUE and SISAL HEMP.)**

AGRICULTURAL IMPLEMENTS.—The latest available statistics—those for 1911—show the number of establishments in Canada producing agricultural imprements as 77, employing 8,834 workmen and producing goods to the value of $20,722,722. The imports for the fiscal year ending March 31st, 1914, amounted to $3,274,693, and the exports to $7,349,135. (See under heading of various kinds of implements.)

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* The names and addresses given in this chapter are those of the principal Canadian producers of the article under which they appear.

AGRITULTURAL IMPLEMENTS (See also under Separate Implements.)

Bailey Underwood Co., Ltd., New Glasgow, N.S.
Beauceville, La Fonderie de, Beauceville East, Que.
Beauchemin & Fils, Ltd., Sorel, Que.
Belanger, A., Montmagny, Que.
Canadian Fairbanks Morse Co., Ltd., Montreal, Que.
Cockshutt Plow Co., Ltd., Brantford, Ont.
Cossitt Co., Limited, The, Brockville, Ont.
Desjardins, J. A., Rigaud, Que.
Erie Iron Works, Ltd., St. Thomas, Ont.
Fleury's, J., Sons, Aurora, Ont.
Frost & Wood Co., Ltd., The, Smith's Falls, Ont.
Hamilton Peter Co., Ltd., Peterboro, Ont.
Hilborn Company, The, Ayr, Ont.
International Harvester Co. of Canada, Ltd., Hamilton, Ont.
Joliette Steel & Iron Foundry, Joliette, Que.
Massey-Harris Co., Ltd., Toronto, Ont.
Maxwell, David & Sons, St. Mary's, Ont.
National Mfg. Co., Ltd., Ottawa, Ont.
Oliver Chilled Plow Works of Canada, Ltd., Hamilton, Ont.
Shantz, P. E., Preston, Ont.
Spramotor Company, London, Ont.
Stewart Sheaf Loader Co., Ltd., Winnipeg, Man.
Sussex Mfg. Co. Ltd., Sussex, N.B.
Verity Plow Co., Limited, Brantford, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.

AJOWAN SEEDS.—The fruit of Carum Ajowan and C. Copticum, which are used in India as a condiment, and yield an infusion and oil very similar to thyme oil, and of value as a stomachic medicine. **(See also THYMOL.)**

ALABASTER.—A variety of gypsum of selenite. It closely resembles marble, but is softer. Pure Alabaster, such as that of Volterra in Tuscany, is of a delicate white or tinted colour, and is translucent. Oriental alabaster is a variety of marble worked in Egypt in ancient times into jars, etc.

ALABASTINE.

Alabastine Co., Paris, Ltd., The, Paris, Ont.

ALASKA SABLE.—The fur of the skunk.

ALBUMEN.—Animal albumen is obtained from the serum of blood and from eggs, and is used in calico-printing and photography.

ALCOHOL.—(See SPIRITS, WHISKEY, GIN, RUM, etc.).

ALCOHOL. (See Spirits.)

Corby, The H., Distillery Co., Ltd., Montreal, Que.
Gooderham & Worts, Ltd., Toronto, Ont.
Hamilton Distillery Co., Ltd., The, Hamilton, Ont.
McLaren, Estate of John A., Perth, Ont.
Spalding & Stewart, Perth, Ont.
St. Hyacinthe Distillery Co., Ltd., The, St. Hyacinthe, Que.
Walker, Hiram & Sons, Ltd., Walkerville, Ont.
Wiser, J. P., & Sons, Limited, Prescott, Ont.

ALCOHOL, Wood.

Berry Brothers, Walkerville, Ont.
Dominion Chemical Co., Ltd., Sherbrooke, Que.
Standard Chemical, Iron & Lumber Co., of Canada, Ltd., Toronto, Ont.

ALCORNOQUE BARK.—The bark of the American trees Byrsonima Laurifolia adn Bowdichia Virgilioides, used in tanning.

ALE.—(See BEER.)

ALE. (See Beer).

Barrie Brewing Co., Barrie, Ont.
Bowie & Co.'s Brewery Ltd., Brockville, Ont.
Blackwood's Ltd., The, Winnipeg, Man.
Brading Brewing Co., Ltd., Ottawa, Ont.
Brandon Brewing Co., Ltd., Brandon, Man.
Brasserie Champlain Limitee, La, Quebec, Que.
Brantford Brewing Co., Ltd., Brantford, Ont.
British Columbia Breweries, Ltd., Vancouver, B.C.
Calcutt Brewing & Malting Co., Ltd. Peterborough, Ont.
Calgary Brewing & Malting Co., Ltd., Calgary, Alta.
Carling Brewing & Malting Co. of Canada, Ltd., London, Ont.
Copland Brewing Co., Ltd., Toronto, Ont.
Cosgrave Brewery Co. of Toronto, Ltd., Toronto, Ont.
Devlin, Felix, Stratford, Ont.
Dominion Brewery Co., Ltd., Toronto, Ont.
Drewry, Edward L., Ltd., Winnipeg, Man.
Empire Brewing Co., Ltd., Brandon, Man.
Enterprise Brewing Co., The, Revelstoke, B.C.
Fernie-Fort Steele Brewing Co., Ltd., Fernie, B.C.
Goldon Lion Brewing Co., Ltd., Prince Albert, Sask.
Gold Lion Brewery, Ltd., Valleyfield, Que.
Grant's Spring Brewery Co., Ltd., Hamilton, Ont.
Halifax Breweries, Ltd., Halifax, N.S.
Hamilton Brewing Assoc., Ltd., Hamilton, Ont.
Holliday Brothers, Guelph, Ont.
Jones, Simeon, Ltd., St. John, N.B.
Kakabeka Falls Brewing Co., Ltd., Fort William, Ont.
Kormann Brewery, Toronto, Ont.
Kuntz Brewery, Ltd., Waterloo, Ont.
Labatt, John, Ltd., London, Ont.
Lethbridge Brewing and Malting Co., Lethbridge, Alta.
McCarthy, J., & Sons, Co., Ltd., Prescott, Ont.
McDonagh & Shea, Winnipeg, Man.
Molson's Brewery, Ltd., Montreal, Que.
Moose Jaw Brewing & Malting Co., Ltd., Moose Jaw, Sask.
National Breweries, Ltd., The, Montreal, Que.
New Ontario Brewing Co., Ltd., North Bay, Ont.
Nova Scotia Brewery, Halifax, N.S.
O'Keefe Brewery Co., of Toronto, Ltd., Toronto, Ont.
Oland & Son, Halifax, N.S.
Phoenix Brewing Co., Ltd., Phoenix, B.C.
Ready's Breweries, Ltd., St. John, N.B.
Regina Brewing Co., Ltd., Regina, Sask.
Reinhardt Salvadot Brewery, Ltd., Toronto, Ont.
Silver Spring Brewery Co., Ltd., Victoria, B.C.
St. Lawrence Brewery Co., Ltd., Cornwall, Ont.
Silver Spring Brewery, Ltd., The, Sherbrooke, Que.
Sleeman & Sons, Ltd., Guelph, Ont.
Taylor & Bate, St. Catharines, Ont.
Victoria Phoenix Brewing Co., Ltd., Victoria, B.C.
Walkerville Brewing Co., Ltd., Walkerville, Ont.

ALE, Ginger.

Bigelow & Hood, Truro, N.S.
Christin, J., & Co., Inc., Montreal, Que.
Drake, Francis, New Glasgow, N.S.
Fernia-Fort Steele Brewing Co., Ltd., The, Fernie, B.C.
Guard, Chas., & Co., Ltd., Montreal, Que.
Kelley's Ginger Ale Works, Montreal, Que.
McLaughlin, J. J., Ltd., Toronto, Ont.
Millar, Robt., Montreal, Que.
Milloy, P. A., Montreal, Que.
Robillard, C., & Co., Ltd., Montreal, Que.
Sanitaris, Ltd., Arnprior, Ont.
Standard Bottling Co., Ltd., Medicine Hat, Alta.
Stewart Bottling Co., Ltd., Montreal, Que.
Taylor & Pringle Co., Ltd., Owen Sound, Ont.
Taylor & Tennant, Amherst, N.S.
Thousand Islands Mineral Water Co., Ltd., Brockville, Ont.
Timmons, M., & Son, Quebec, Que.
Tune, J., & Sons, London, Ont.
Wilson, Charles, Limited, Toronto, Ont.

ALEWIFE.—A fish of the shad family, of which enormous numbers are caught in the rivers of New England, Nova Scotia, and New Brunswick.

ALFALFA.—The lucern (medicogo sativa), a leguminous plant having bluish purple clover-like flowers, cultivated for fodder and called alfalfa in United States and Canada.

ALGABORA.—The pods of Prosopis Dulcis, used in Mexico for cattle food, and also as a tanning material. **(See also CABOR BEANS.)**

ALIZARINE.—A dyeing material found originally in madder, but now obtained from anthracene, the least volatile of the coal oils. It is deposited in long red crystals.

ALKALIES.—Soluble hydroxides which neutralize acids, and are used in industries, such as the salts of potash and soda, ammonium and lime.

ALKANET.—The root of Anchusa or Alkanna Tinctoria, exported from the Levant. It yields a beautiful, but not very durable dye known as Alkanna Red.

ALLIGATOR PEAR.—(See AVOCADO PEAR.)

ALLIGATOR SKINS.—Several thousand skins of the Mississippi alligator are sold annually in London and made into leather. The skins of the young animals are soft, and are best when they measure up to 8 feet in length.

ALLOYS.—Compounds formed by two or more metals. The union is almost always effected at a high temperature, except in mercurial alloys, called amalgams. When lead, tin, zinc and cadium enter into the composition, the alloy exhibits the qualities of its constituents, but the alloys of other metals show certain peculiarities. Their specific gravity is not the mean of that of their components, and their electric conductivity is not determined by the relative volumes of their components. As a rule alloys are harder, more elastic and more easily fusible than simple metals. The most useful alloy in manufactures is brass, compounded of copper and tin in various proportions. **(See BRASS.)** Copper and tin produce also bronze, bell-metal, gun-metal, aned speculum metal. With the addition of phosphorus phosphor-bronze is formed. German-silver is composed of zinc, copper and nickel, and Britannia metal of tin, copper, and antimony. Pewter is an alloy of tin and lead; type-metal of lead, tin and antimony; and fusible metal of tin, lead and bismuth. Aluminium bronze consists of aluminium and copper. Alloys of platinum, iridium, etc., are also used in small quantities. A new alloy known as MONELL METAL, for which there is a rapidly growing demand is made directly from the nickel copper matte produced by the smelters at Coppercliffe, Ontario. **(See also GOLD and SILVER.)**

ALLSPICE.—(See PIMENTO.)

ALMONDS.—The fruit of the almond tree exported from Italy, Morocco, and Spain, and grown also in France. Bitter almonds grow on trees originally wild. An oil is extracted from sweet almonds.

ALOE FIBRE.—The fibre of Fourcroya Gigantea, long and silky and stronger than hemp. It is exported from Mauritius.

ALOE WOOD.—(See LIGN ALOES.)

ALOES—The inspissated juice of several species belonging to the order of Liliaceae. The best, the Socotrine aloes, come from Socotra, Bombay, the East Indies and Zanzibar. The best Socotrine aloes are rich in colour and translucent; hepatic aloes are darker and opaque; and caballine aloes are the coarsest or refuse. The active principle is a crystalline substance called aloin.

ALPACA WOOL.—Under this name are included the fleeces of the vicune and guanaco, as well as of the alpaca itself, animals of the sheep family living in the Andes.

ALPISTE.—The french name for canary seed.

ALUM.—Common potash alum, and ammonia alum, in which ammonium takes the place of potassium, are extensively used by dyers and calico printers.

ALUMINIUM.—A metal contained in bauxite, clay, felspar and many other rocks. It is extremely light, with a specific gravity barely one-third that of iron, is white in colour, nearly as hard as fine silver, does not tarnish and takes a high polish. These qualities render it suitable material for a great many purposes such as the making of scientific instruments, kitchen utensils, motor car parts, aeroplane parts, etc. The metal is a very good conductor and is therefore used for long distance transmission wires. Another important use is as aluminum bronze powders for paints, inks, etc. While there are many clays and rocks containing aluminium, yet it is produced almost exclusively from bauxite by electrical process.

ALUMINUM POWDER.

Canadian Bronze Powder Works, Montreal, Que.

ALUMINA, Sulphate of.

Nichols Chemical Co. of Canada, Limited, The, Montreal, Que.

ALUMINUM Fabricated and Sheets.

Northern Aluminum Co., Ltd., Toronto, Ont.

AMALGAMS.—The alloys formed by the union of mercury with other metals. Mercury will unite with gold and silver at ordinary temperatures, and is employed in separating the precious metals from their ores. It dissolves the metal, leaving the earthy particles. Gold amalgam is used to a small extent in gilding, the mercury being driven off by heat. Tin amalgam is employed in the manufacture of looking-glasses.

AMBER.—The fossil resin of a coniferous tree, obtained chiefly from the Baltic, off the coast of Pomerania, Prussia, and more rarely in the North Sea, between Jutland and the Dutch frontier.

AMBERGRIS.—A secretion from the intestines of the sperm whale, used in perfumery. It is found floating on the sea off the coasts of China, Japan, Sumatra, Madagascar and Brazil.

AMBONA WOOD.—A beautiful reddish-brown wood that grows in India and the Moluccas, and is used for inlaying.

AMBETTE.—(See **MUSK PLANTS.**)

AMERICAN CLOTH—(See **LEATHER CLOTH**)

AMMONIA—A volatile alkali. Carbonate, bicarbonate, chloride and sulphate of ammonia are articles of trade. The last is often used by farmers as a top-dressing.

Coke ovens, gas plants and oil refining establishments produce a by-product known as sulplate of ammonia, which is used in the arts and also extensively as a fertilizer.

The world's production of this commodity in 1913 was 1,144,400 metric tons. The principal producers were as follows:

	metric tons.
Germany	549,000
United Kingdom	425,700
France	75,000
Belgium	48,600
Austria-Hungary	39,000
Italy	15,000
Spain	15,000

AMMONIA.

Alpha Chemical Co., Ltd., The, Berlin, Ont.
British America Paint Co., The, Victoria, B.C.
Canadian Ammonia Co., Ltd., Toronto, Ont.
Codville Co., Ltd., The, Winnipeg, Man.
Cowan, John, & Co., Limited, Montreal, Que.
Dominion Tar and Ammonia Co., Ltd., Hamilton, Ont.
Forbes & Nadeau, Montreal, Que.
Hugman, A. W., Ltd., Montreal, Que.
Paine, The J. B., Co., Ltd., Toronto, Ont.
Sapho Mfg. Co., Ltd., Montreal, Que.
Stuart & Foster, Ltd., Toronto, Ont.
Sultana, Ltd., Montreal, Que.

AMMONIA, Carbonate of.

Canadian Ammonia Co., Ltd., Toronto, Ont.

AMMONIA LIQUOR, Concentrated.

Canadian Ammonia Co., Ltd., Toronto, Ont.
Paine, The J. B., Co., Ltd., Toronto, Ont.

AMMONIA POWDER.

Cowan, John & Co., Ltd., Montreal, Que.
Gorman, Eckert & Co., Ltd., London, Ont.
Lawrason, S. F., & Company, London, Ont.
Nicholson & Brock, Toronto, Ont.
Paine, The J. B., Co., Ltd., Toronto, Ont.
Richards Pure Soap Co., Ltd., The, Woodstock.

AMMONIA, Sulphate of.

Dominion Iron & Steel Co., Ltd., Sydney, N.S.

AMMONIACUM.—A gum resin that exudes from the roots of Dorema ammoniacum, a plant of Persia and Turkestan. It is made into a cement for porcelain, and a medicine.

AMMUNITION.

Dominion Cartridge Co., Ltd., Montreal.

ANCHOVY.—A small fish caught in the Mediterranean and salted or preserved in oil. The best comes from Leghorn.

ANDIROBA OIL.—(See **CARAPA.**)

ANGLES AND CHANNELS Brass.

Brown's Copper & Brass Rolling Mills, New Toronto, Ont.
MacKinnon, Holmes & Co., Ltd., Sherbrooke, Q.

ANGLES, Steel.

Canadian Allis-Chalmers, Ltd, Toronto, Ont.
Canadian Bridge Co., Ltd., Walkerville, Ont.
Dominion Bridge Co., Ltd., Montreal, Que.
Hamilton Bridge Works Co., Ltd., Hamilton.
Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Phoenix Bridge & Iron Works, Ltd., The, Montreal, Que.
St. Lawrence Bridge Co., Ltd., Montreal, Que.
Structural Steel Co., Ltd., Montreal, Que.

ANGELICA.—An umbelliferous plant of which the roots, fruits and stems are used in confectionery medicine, etc. The finest extract comes from Niort, Deux-Sevres, in France.

ANODES, Brass, Copper, Zinc, etc.

Canadian Seamless Wire Co., Ltd., Toronto, Ont.
Tallman Brass & Metal Company, Hamilton.
Wells, W. W., Toronto, Ont.

ANGORA WOOL.—(See **MOHAIR & WOOL.**)

ANGOSTURA.—The bitter bark of Galipea Ofgcinalis, which grows abundantly in Venezuela. It is used as a tonic and febrifuge, and in the manufacture of bitters. False Angostura bark is obtained from Strychnos Nux omica. The name Angostura was that of the present Ciudad Bolivar, but the bitters are now manufactured in Trinidad.

ANILINE.—A brownish oily liquid obtained from coal-tar, which forms the basis of many beautiful dyes.

ANIMALS.—(See **CATTLE, SHEEP, etc.**)

ANIME.—A resin, the product of Icica Icicariba, a Brazilian tree, African Copal, and American Copal, are also known in England as anime.

ANISEED.—The fruit of an umbelliferous plant. The best quality is greyish green in color, and comes from Malta and Spain. It is also produced in Touraine, Russia and Italy. The seeds are used in the manufacture of anisette, absinthe, and other cordials, and the essential oil as a condiment and medicine. Star aniseed, is used for similar purposes. It grows wild in China, Tonkin, and Japan, and is cultivated in Java and the Philippine.s Large quantities are exported from China. The wood is used in marqueterie.

ANISETTE.—A liquor which derives its aroma chiefly from aniseed. It is largely manufactured in France, and is shipped from Bordeaux. Dutch anisette is less sweet, and contains more alcohol.

ANNATO or **ARNOTTO.**—A dye-stuff made from the reddish pulp of the seeds of the Bixa Orellana, a plant which grows in Central America. It is much used in France for dyeing silk.

ANTHRACITE.—A very hard, shiny coal containing 80 to over 90 per cent. of carbon. It burns with a little flame, but gives off a large amount of heat, and is therefore used in furnaces for the production of steam. Anthracite occurs in several countries, but the most important mines are in South Wales and Pennsylvania. **(See COAL.)**

ANTIMONY.—A shiny, bluish-white metal, very brittle. The trioxide, valentinite, in crystalline needles, is extracted at Sensa in Algeria, Sarawak in Borneo, and in Japan, and most of the metal produced in Great Britain is obtained from these ores. The sulphide is found in England, Saxony, France, etc. Deposits of the ore have been found in several places in Canada, principally in York County, N.B., Hants County, N.S., and Wolf County, Que. The only deposit that has been worked to any extent is that of the West Gore Antimony Company, West Gore, N.S. Antimony is mixed with other metals to give them greater hardness—in type-metal, bell-metal, etc.

ANVILS AND VISES. (See Foundries.)

Eureka Planter Co., The, Woodstock, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
Thompson Mfg. Co., Ltd., Grand Bay, N.B.

APATITE.—Natural phosphate of lime mixed with calcium chloride or fluoride found in large quantities in Canada and near Stavanger, in Norway. **(See LIME and PHOSPHATE.)**

APPLES.—In great varieties and especially fine quality grow in almost all parts of Canada, but most abundantly in the Annapolis Valley of Nova Scotia in Prince Edward County and the Niagara district in Ontario, and in the Southern part of British Columbia. According to the last census the apple crop of Canada aggregated 10,618,666 bushels in the year 1910. The export of apples from Canada in both the dried and green state amounted to 3,867,264 bushels for the fiscal year ending March 31st, 1914.

APRICOT.—This tree is of the same order as the pear. It was introduced into Europe from Armenia, and it grows wild in China also. In France the fruit is made into pulp or candied, especially at Clermont-Ferrand. Pulp and dried and tinned apricots are also exported from California. The kernel possesses properties resembling those of bitter almonds, and is used in the fabrication of ratafia and noyau, and an oil is expressed at Briancon.

APRONS, Mechanics and Laborers.

Dixon Mfg. Co., The, Calgary, Alta.
Miller Mfg. Co., Ltd., Toronto, Ont.
Neckwear & Fancy Goods, Co., Ltd., The, St. John, N.B.
Western King Mfg. Co., Ltd., Winnipeg, Man.

APRONS, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire and Rubber Goods Co., Ltd., Toronto, Ont.

APRONS, Waterproof, Canners' & Packers'.

Guelph Oiled Clothing Co., Ltd., Guelph, Ont.
Tower Canadian, Ltd., Toronto, Ont.

AQUAMARINE.—A precious stone of nearly the same chemical composition as the emerald, but less valuable. It has a pale green colour. The best stones come from Ceylon, but the stone is also found in Siberia and Brazil.

ARCHIL.—A violet-red paste made from various lichens, and used in dyeing. Archil liquor is prepared by ammonia and heat from a decoction of the lichen. **(See also CUDBEAR and ORCHELLA.)**

ARECA-NUT.—The betel-nut so much used for chewing in the East, the fruit of the Areca Catechu palm and certain leguminous shrubs. A small quantity of nuts is imported into Great Britain, where they are used only for tooth powders.

ARGENTITE.—Silver sulphide, occurring in cubic crystals and called silver-glance.

ARGOL.—The crust formed in wine-casks. It is a bitartrate of potash, and when pure is a fine white crystalline powder or colourless crystals. Several hundred tons are exported annually from Portugal for dyeing. The red argol, deposited from red wine, is used for the darker shades.

ARGUS.—The feathers of the argus pheasant, a native of Siam, the Malacca peninsula, and the neighbouring islands are used as ornaments.

ARMBANDS.

Berlin Suspendor Co., Ltd., Berlin, Ont.
Boston Mfg. Co., Ltd., Toronto, Ont.
Canadian Suspendor & Mfg. Co., Toronto, Ont.
Dominion Suspendor Co., Ltd., Niagara Falls.
Eisman & Co., Toronto, Ont.
Glassford Bros., Ltd., Montreal, Que.
Globe Suspender Company, Rock Island, Que.
King Suspender Company, Toronto, Ont.
Leadley Mfg. Co., Ltd., Winnipeg, Man.
Montreal Suspender and Umbrella Mfg. Co., Montreal, Que.
Standard Suspender Company, Montreal, Que.
Westwood, C. H., Mfg .Co., Limited, Toronto.

ARNICA.—A plant of the composite order. A tincture made from the flowers is used to dress wounds.

ARRACK.—A spirit made from various species of palm; a favorite drink in the East.

ARROWROOT.—A starchy substance derived from the rhizomes of various plants. True arrowroot is obtained from the West Indies and South America, and is exported chiefly from the West Indies. The Bermudas produce a fine quality.

ARSENATE OF LEAD.

Canada Paint Co., Ltd., The, Montreal, Que., and Winnipeg, Man.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.

ARSENIC.—A steely-gray substance with a metallic lustre. It is produced by the burning of arsenic ores. In Canada the ores which produce it are the arsenical pyrites and the Cobalt-Arsenical ores of Cobalt, Ont. About 8,000 tons are produced annually, the greater part of which comes from England and Germany. Paris Green is made from arsenic oxide. **(See PARIS GREEN.)**

ARSENIC, White.

Coniagas Reduction Co., Ltd., St. Catharines, Ont.
Deloro Mining and Reduction Co., Ltd., Deloro, Ont.

ART SQUARES.

Guelph Carpet Mills Co., Ltd., Guelph, Ont.
Toronto Carpet Mfg. Co., Ltd., Toronto, Ont.

ARTIFICIAL LIMBS & TRUSSES.—According to the last census there were four establishments in Canada making these articles, employing 41 workmen, and with an output valued at $71,116. The value of the artificial limbs and trusses imported into Canada during the fiscal year ending March 31st, 1914, was $5,807.

ASBESTOS.—The asbestos of commerce includes several fibrous materials, all of which are characterized by the common and essential property of fibrous structure, and may be classed as either amphibole or serpentine. Amphibole asbestos, the fibre is usually brittle, and therefore, of less value as compared with the serpentine, commonly called chrysolite, which, although finally fibrous and pliable, has sufficient tensile strength to permit it being spun into thread for textile purposes. The most valuable and most successfully mined asbestos occurs in serpentine rock. Canada is the world's chief source of asbestos. It occurs in the serpentine belt of the Province of Quebec, particularly in the neighborhood of Asbestos, Thedford Mines and Black Lake. The Canadian production for the year 1913 was as follows:

	Tons.
Asbestos crude No. 1	2,140
Asbestos crude No. 2	2,870
Asbestos milling stock No. 1	14,056
Asbestos milling stock No. 2	29,525
Asbestos milling stock No. 3	88,018

The Canadian exportation of asbestos for the fiscal year, ending with March 31st, 1914, amounted to $3,152,710.

Russia is the next important producer. The latest available returns are for 1913, in which year the output was 9,060 metric tons of 2,204 pounds.

British South Africa is the third producer. This country in 1911 produced 1,637 metric tons.

Cyprus comes fourth, with 725 metric tons in 1910.

It is the fibrous structure and the flexibility of asbestos, its practical insolubility in acids, its incombustibility, and its poor conductivity of heat and electricity that render it so valuable, not only for fireproof, but for insulating against electricity. It is used for boiler covering. In the form of paper moulded in sectional forms, it is used for steam-pipe coverings, and for building purposes. It is also mixed with cement and made into shingles and sheeting for buildings. Another extensive use is steam packing, automobile brakes and tires, and in the manufacture of retort and furnace cement. In the manufacture of electrical apparatus, it is used for innumerable insulating purposes.

ASBESTOS.

Asbestos Corporation of Canada, Ltd., Thetford Mines, Que.
Asbestos Mfg. Co., Ltd., Montreal, Que.
Broughton Asbestos Fibre Co., East Broughton, Que.
Canadian Asbestos Co., Montreal, Que.
Eureka Mineral Wool & Asbestos Co., Toronto.
Johnson's Co., Thetford Mines, Que.
Keashy, Mattison Co., Thetford Mines, Que.

ASBESTOS, Crude No. 1 and No. 2.

Asbestos and Asbestic Co., Ltd., Asbestos, Que.
Asbestos Corporation of Canada, Montreal, Que.
Bell Asbestos Mines, Thetford Mines, Que.
Jacob's Asbestos Mfg. Co., Montreal, Que.
Johnson's Asbestos Co., Ltd., Thetford Mines, Que.
Martin Bennett Asbestos Co., Ltd., Thetford Mines, Que.

ASBESTOS MILLED FIBRE.

Asbestos & Asbestic Co., Ltd., Asbestos, Que.
Asbestos Corporation of Canada, Montreal, Que.
Beaudoin & Audet Asbestos Co., Robertsonville, Que.
Bell Asbestos Mines, Thetford Mines, Que.
Berlin Asbestos Co., Berlin, Ont.
Black Lake Asbestos & Chrome Co. Ltd., Toronto Ont.
Brome Asbestos Co., Ltd., Montreal, Que.
Brompton Lake Asbestos Co., Montreal Que.
Broughton Asbestos Fibre Co., East Broughton, Que.
Eastern Townships Asbestos Co., Beauceville, Que.
Jacobs Asbestos Mfg. Co., Montreal, Que.
Johnson's Asbestos Co., Ltd., Thetford Mines, Que.
Martin Bennett Asbestos Mine, Ltd., Thetford Mines, Que.
Robertson Asbestos Mfg. Co., Quebec, Que.
The Quebec Mines & Metal Co. Beauceville, Q.
The Ling Asbestos Co., Ltd., East Broughton, Que.
The Frontenac Asbestos Co., Ltd., Quebec, Que.

ASBESTOS.—(Manufactured articles, such as boiler coverings, packings, electric insolating, fireproof, clothing, curtains, etc.)

Asbestos Manufacturing Co., Ltd., Montreal, Que.
Asbestos Products Co., of Canada, Montreal, Que.
Bremmer, Alex., Ltd., Montreal, Que.
Canadian Asbestos Co., Montreal, Que.
Canadian H. W. John's Minville Co., Montreal, Que.
Turner Bros., Canada, Ltd., Montreal, Que.

ASH.—There are two kinds of ash cut in Canada, viz., white ash and black ash. The wood is moderately hard, heavy, and strong, with a coarse, straight grain, and fine texture. Its chief value lies in its toughness and elasticity. It is used chiefly for interior finish of houses, for framework of all sorts in vehicles, cars, and agricultural implements. Black ask is also used for decorative work. The wood has an attractive grain, and is easily seasoned and worked. The lack of taste and odour makes it value for food containers, such as refrigerators, baskets, barrels, and boxes.

ASPHALT AND ASPHALTUM.—A composition of bitumen, pitch, lime and gravel, used when forming pavements, and as a waterproof cement for bridges, roofs, and so forth. Asphaltic cement, artificial asphalt, is prepared from coal tar, lime, sand and so forth.

The importations into Canada for the year ending 31st March, 1914, are as follows:

	Tons.
Asphalt, solid	4,168
Asphalt, not solid	167
Asphaltum oil for paving purposes, gals.	28,087

ASPHALT, Sewer Joint and Filler.

Canadian Mineral Rubber Co., Ltd., Winnipeg.

ASPHALTUM.

British Columbia Refining Co., Ltd., Vancouver.
Crescent Oil Co., The, Hamilton, Ont.
Sidney Rubber Roofing Company, Sidney, B.C.
Westrumite, Limited, Brantford, Ont.

ASSAFOETIDA.—A gummy resinous exudation from the roots of umbelliferous plants, which are natives of Persia and the Ural steppe, and are cultivated at Herat. It has a disagreeable odour, and a bitter taste. In India it is used as a condiment and medicine; In Europe only as the latter.

ASSAYERS.—Purchasers of goods very often require to know that they receive the class of article ordered, and for this purpose submit samples of the goods to Customs Assayers and Chemists. The principal Canadian Assayers and Chemists are:—

Milton L. Hersey Co., Ltd., Montreal.
Canadian Laboratories, Toronto.

ATOMIZERS.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.

ATOMIZERS, Steam.

Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

ATTAR OF ROSES.—An essential oil distilled from roses, especially from the petals of Rosa Damescena. Kazanlik, in Eastern Rumelia, is one great centre of the trade. Attar or Otto is also distilled in the N. W. Provinces of India and the Punjab. As about 3,000 lbs. of rose-leaves yield only an ounce of oil, pure attar is very expensive.

AUGERS.

Beatty Bros., Ltd., Fergus, Ont.
Canadian Warren Axe & Tool Co., Ltd., St. Catharines, Ont.
Chatham Malleable & Steel Mfg. Co., Chatham, Ont.
Erie Iron Works, Ltd., St. Thomas, Ont.
Smart, The Jas., Mfg. Co., Ltd., Brockville, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.

AUTOHARPS.

Sterling Action & Keys, Ltd., Toronto, Ont.

AUTOMOBILES.—There are nineteen establishments in Canada making automobiles, automobile repairs and accessories, according to the latest available returns, viz., 1911. These employ 2,570 people. The annual value of the products amounts to $6,422,815. The importations of automobiles and parts for the fiscal year ending 31st December, 1914, amounted to $11,179,754.

AUTOMOBILE ACCESSORIES.

Croftan Storage Battery Co., Toronto, Ont.
Dominion Stamping Co., Ltd., Walkerville, Ont.
Galt Art Metal Co., Ltd., Galt, Ont.
Leather Tire Goods Co., The, Niagara Falls, Ont.
Pollock Manufacturing Co., Ltd., Berlin, Ont.
Prest-O-Lite Company, The, Toronto, Ont.
Skinner Co., Ltd., The, Gananoque, Ont.

AUTOMOBILE BODIES, TOPS & TRIMMINGS.

American Auto Trimming Co., Walkerville, Ont.
Auto Top and Body Co., Ltd., The, Toronto, Ont.
Canada Carriage Co., Brockville, Ont.
Collett's Carriage Works, Toronto, Ont.
Conboy Carriage Co., Ltd., The, Toronto, Ont.
Dufour, Joseph, Ottawa, Ont.
Fisher Body Co. of Canada, Ltd., Walkerville.
Fray-Sons-Campbell, The Wm., Ltd., Chatham.
Hay & Co., Ltd., Woodstock, Ont.
Lariviere, La Cie, Limitee, Roxton Falls, Que.
Latta, D. G., Ltd., Edmonton, Alta.
Lawrie Wagon & Carriage Co., The, Winnipeg.
Ledoux Carriage Co., Ltd., The, Montreal, Que.
MacDonald-Meerbeck, Ltd., Toronto, Ont.

AUTOMOBILE HOODS.

Auto Top & Supply Co., Ltd., Winnipeg, Man.
Dominion Stamping Co., Ltd., Walkerville, Ont.
Galt Art Metal Co., Ltd., The, Galt, Ont.

AUTOMOBILE TOPS AND TRIMMINGS.

Auto Top & Supply Co., Ltd., Winnipeg, Man.
Canadian Top Co., Ltd., Tilbury, Ont.
Cutten & Foster, Toronto, Ont.
Galt Art Metal Co., Ltd., Galt, Ont.
Guelph Carriage Top Co., Ltd., Guelph, Ont.
Lariviere, La Cie., Limitee, Roxton Falls, Que.
Lawrie Wagon & Carriage Co., The, Winnipeg, Man.

AUTOMOBILE TRUCK BODIES.

Boyce Carriage Co., Ltd., Winnipeg, Man.
Lewis Carriage Works, Ltd., Winnipeg, Man.

AUTOMOBILES.

Dominion Motor Car Co., Vancouver, B.C.
Ford Motor Co. of Canada, Ltd., Walkerville, Ont.
Hupp Motor Car Co., Windsor, Ont.
Keeton Motors, Ltd., Brantford, Ont.
McLaughlin Carriage Co., Ltd., Oshawa, Ont.
McLaughlin Motor Car Co., Ltd., Oshawa, Ont.
Maritime Motor Co., Ltd., The, St. John, N.B.
New Dominion Motors, Ltd., Walkerville, Ont.
Nova Scotia Carriage & Motor Car Co., Ltd., Amherst, N.S.
Petrolia Motor Car Co., Petrolia, Ont.
Reo Motor Car Co. of Canada, Ltd., St. Catharines, Ont.
Russell Motor Car Co., Ltd., West Toronto, Ont.
Studebaker Corporation of Canada, Ltd., Walkerville, Ont.
Schacht Motor Car Co., Hamilton, Ont.
Tate Electrics, Ltd., Montreal, Que.
Tudhope Motor Co., Ltd., Orillia, Ont.
Watson Carriage Co., Ltd., Ottawa, Ont.

AUTOMOBILES Toy.

Gendron Mfg. Co., Ltd., Toronto, Ont.

AUTO-STARTERS.

Canadian Westinghouse Co., Ltd., Hamilton.
Crofton Storage Battery Co., Toronto, Ont.
Prest-O-Lite Co., The, Toronto, Ont.

AVIGNON BERRIES.—The fruit of **Rhamnus** Infectoria, which yield a yellow dye. **This** buckthorn is grown in the south of **France. (See YELLOW BERRIES.)**

AVOCADA PEAR.—Or Alligator Pear, a fruit tree of the Lauraceae order, which grows in the West Indies and West Africa. It yields an oil used as an illuminant and in soap-making, and from the seeds a marking-ink is obtained.

AWNINGS, TENTS AND SAILS.—According to the census of 1911, there were twenty-six establishments in Canada making these commodities, employing 612 workmen, with an output valued at $621,904.

AWNINGS.

Alberta Saddlery Co., Ltd., Lethbridge, Alta.
Bromley & Hague, Ltd., Winnipeg, Man.
Canadian Cottons, Ltd., Montreal, Que.
Dixon Mfg. Co., The, Calgary, Alta.
Edmonton Tent and Mattress Co., Ltd., Edmonton, Alta.
Gourock Ropework Export Co., Ltd., Montreal.
Lipsett, Edward, Vancouver, B.C.
May, J., & Co., Winnipeg, Man.
Merchants Awning Co., Ltd., Montreal, Que.
Montreal Tent, Awning, & Tarpaulin Co., Montreal, Que.
Pike, The D., Co., Ltd., Toronto, Ont.
Smart-Woods, Limited, Ottawa, Ont.
Sonne, Thomas, Sr., Montreal, Que.
Soper, Robt., Hamilton, Ont.
Stamco Ltd., Saskatoon, Sask.
Turner, Beeton & Co., Ltd., Victoria, B.C.
Turner, J. J., & Sons, Peterborough, Ont.
Western King Mfg. Co., Ltd., Winnipeg, Man.
Western Tent & Mattress Co., The, Calgary.

AWNINGS Metal.

Metal Shingle & Siding Co., Ltd., Preston, Ont.
Metallic Roofing Co. of Canada, Ltd., The, Toronto, Ont.

AXES.

Bedford Manfg. Co., The, Bedford, Que.
Blenkhorn & Sons, Canning, N.S.
Campbell Bros., St. John, N.B.
Canada Axe & Harvest Tool Co., Ltd., Montreal, Que.
Canadian Warren Axe & Tool Co., Ltd., St. Catharines, Ont.
Fowler Josiah Co., Ltd., The, St. John, N.B.
Hills Allan, Edge Tool Co., Ltd., Galt, Ont.
Mann Axe & Tool Co., Ltd., St. Stephen, N.B.
Roxton Tool and Mill Co., Ltd., Roxton Pond, Que.
Smart, The James, Mfg. Co., Ltd., Brockville.
Walters, H., & Sons, Hull, Que.
Welland Vale Mfg. Co., Ltd., The, St. Catharines, Ont.

AXLES, Buggy, Carriage and Wagon.

Campbell Bros., St. John, N.B.
Coghlin, B. J., Co., Ltd., Montreal, Que.
Dowsley Spring & Axle Co., Ltd., Chatham, Ont.
Fowler, Josiah, Co., Ltd., St. John, N.B.
Gananoque Spring and Axle Co., Ltd., Gananoque, Ont.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.
Plessisville Foundry Co., Ltd., The, Plessisville, Que.
Starr, Mfg. Co., Ltd., Dartmouth, N.S.

AXLES, Buggy, Carriage and Wagon (Maple and Hickory).

Ackland, D., & Son, Ltd., Winnipeg, Man.
Heard, John, & Co., St. Thomas, Ont.

AXLES, Car.

Canada Forge Co., Ltd., Welland, Ont.
Coghlin, B. J., Co., Ltd., Montreal, Que.
Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Smith Foundry Co., Ltd., The, Fredericton, N.B.
Steel Co., of Canada, Ltd., Hamilton, Ont.

AXLES, Locomotive.

Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Steel Co. of Canada, Ltd., Hamilton, Ont.

AXLES, Vehicle (Ball Bearing).

Chapman Double Ball Bearing Co., Ltd., Toronto, Ont.

B

BABBITT METAL.—(Was named after the inventor, Isaac Babbitt, of Massachusetts), a soft white alloy of variable composition, used in bearings, to diminish friction.

BABBITT METAL.

Canada Metal Co., Ltd., Toronto, Ont.
Canadian Bronze Co., Ltd., Montreal, Que.
Cuthbert, W. R., & Co., Montreal, Que.
Dominion Metal Co., Sherbrooke, Que.
Fleming, James, St. John, N.B.
Frankel Brothers, Toronto, Ont.
Hoyt Metal Co., The, Toronto, Ont.
Leonard, E., & Sons, London, Ont.
Lumen Bearing Co., West Toronto, Ont.
McAvity, T., & Sons, Ltd., St. John, N.B.
Miller Brothers & Sons, Ltd., Montreal, Que.
Robertson, The James, Co., Ltd., Montreal, Que., and Toronto, Ont.
Robertson, Thomas, & Co., Ltd., Montreal, Que.
Shaw & Mason, Limited, Sydney, N.S.
Spooner, Alonzo, Ltd., Port Hope, Ont.
Tallman Brass & Metal Co., Hamilton, Ont.
Turner, John, & Son, Toronto, Ont.
Wing, J. T., & Co., Ltd., Windsor, Ont.

BACON.—(See HOGS.)

BACON.

Brown, J., & Co., Winnipeg, Man.
Collingwood Packing Co. Ltd., Collingwood, Ont.
Davies, The William, Co., Ltd., Toronto, Ont.
Davis & Fraser, Halifax, N.S.
Duff, John, & Son, Ltd., Hamilton, Ont.
Fearman, F. W., Co., Ltd., Hamilton, Ont.
Fowler's Canadian Co., Ltd., Hamilton, Ont.
Gunn's, Ltd., Toronto, Ont.
Ingersoll Packing Co., Ltd., Ingersoll, Ont.
St. Thomas Packing Co., Ltd., St. Thomas, Ont.
Tillsonburg Packing Co., The, Tillsonburg, Ont.
Western Packing Co., of Canada, Ltd., Winnipeg, Man.
Wilson, The B., Co., Ltd., Victoria, B.C.
Whyte Packing Co., Ltd., The, Stratford, Ont.
Wight, W., & Co., Toronto, Ont.

BADGER.—A carnivor of the weasel family. It lives in Europe up to latitude 60 deg. N., and in Central and Northern Asia. The American badger is a different genus. The skins are used as furs, and the hair is made into brushes.

BADGES, BANNERS, ETC., Lodge, Society and Church.

Blake, W. E., & Son, Toronto, Ont.
Dominion Regalia Co., Ltd., Toronto, Ont.
Mortimore & Blackeby, Toronto, Ont.
Scully, William, Montreal, Que.

BADGES, Metal. (See also Medals and Badges.)

Birks, Henry, & Sons, Ltd., Montreal, Que.
Ellis, P. W., & Co., Ltd., Toronto, Ont.
Hamilton Stamp & Stencil Works, Ltd., Hamilton, Ont.
Lees, George H., & Co., Ltd., Hamilton, Ont.
Montreal Stencil Works, Montreal, Que.
Roden Brothers, Ltd., Toronto, Ont.
Scully, William, Montreal, Que.
Zock, J. J., & Co., Ltd., Toronto, Ont.

BAEL FRUIT.—The fruit of the Bengal quince, a kind of orange. It is an astringent medicine, and also yields a perfume, and a yellow dye.

BAGGERS.

White, The George, & Sons, Co., Ltd., London, Ont.

BAGS.—The making of bags for holding grain, vegetables, ores, and so forth, is a considerable industry in itself.

BAGS, Camping, Dunnage and Sleeping.

Bromley & Hague, Ltd., Winnipeg, Man.
Carson, Hugh, Ltd., Ottawa, Ont.
Edmonton Tent & Mattress Co., Ltd., Edmonton, Alta.
Leckie, John, Ltd., Toronto, Ont.
Lipsett, Edward, Vancouver, B.C.
Mackenzie, Ltd., Ottawa, Ont.
Merchants Awning Co., Ltd., Montreal, Que.
Soper, Robert, Hamilton, Ont.
Sonne, Thos., Sr., Montreal, Que.
Turner, Beeton & Co., Ltd., Victoria, B.C.
Turner, J. J., & Sons, Peterborough, Ont.

BAGS, Cement, Graphite, Plaster and Talc.

Bemis Brothers Bag Co., Winnipeg, Man.
Canadian Bag Co., Ltd., Montreal, Que.
Smart-Woods, Ltd., Montreal, Que.

BAGS, Cotton and Jute.

Bemis Brothers Bag Co., Winnipeg, Man.
Canadian Bag Co., Ltd., Montreal, Que.
Hopkins Manfg. Co., Ltd., The, Toronto, Ont.
Pell, F. de P., Montreal, Que.
Rideau Bag Co., Montreal, Que.
Smart-Woods, Ltd., Montreal, Que., and Winnipeg, Man.
Sunset Manfg. Co., Ltd., Winnipeg, Man.

BAGS Flour, Feed, Meal, Grain, Sugar.

Bemis Brothers Bag Co., Winnipeg, Man.
Smart-Woods, Ltd., Montreal, Que.
Sunset Manfg. Co., Ltd., Winnipeg, Man.

BAGS, Leather (Ladies').

Adams Manfg. Co., Ltd., Toronto, Ont.
Brown Brothers, Ltd., Toronto, Ont.
Eagle Leather Works, Montreal, Que.
Flett Lowndes & Co., Ltd., Toronto, Ont.
National Leather Co. of Canada, Ltd., Toronto, Ont.
Sale, Julian, Leather Goods Co., Ltd., Toronto.
Standard Leather Goods, Ltd., Montreal, Que.
Western Leather Goods Co., Ltd., Toronto, Ont.
Winnett & Wellinger, Ltd., Toronto, Ont.

BAGS, Mail Coal, Ore, Asbestos, Horsefeed.

Canadian Bag Co., Ltd., Montreal, Que.
Carson, Hugh, Ltd., Ottawa, Ont.
Leckie, John, Ltd., Toronto, Ont.
Lipsett, Edward, Vancouver, B.C.
Pike, The D., Co., Ltd., Toronto, Ont.
Smart-Woods, Ltd., Montreal, Que.
Sonne, Thomas, Sr., Montreal, Que.
Soper, Robert, Hamilton, Ont.
Turner, J. J., & Sons, Peterborough, Ont.

BAGS, Paper.

Continental Bag & Paper Co., Ltd., Ottawa, Ont.
Dominion Paper Co., Montreal, Que.
Eddy, The E. B., Co., Ltd., Hull, Que.
Kilgour Bros., Toronto, Ont.
Reason, H. T., & Co., London, Ont.
St. Lawrence Paper Bag Co., Quebec, Que.
Steele-Briggs Seed Co., Ltd., Toronto, Que.
Wilson, J. C., Ltd., Montreal, Que.

BAGS, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.

BAGS, Travelling.

Adams Bros. Harness Mfg. Co., Ltd., Toronto.
Adams Manfg. Co., Ltd., Toronto, Ont.
Berlin Trunk & Bag Co., Ltd., The, Berlin, Ont.
Borbridge, S. & H., Ottawa, Ont.
Carson, Hugh, Ltd., Ottawa, Ont.
Christie Trunk and Bag Co., Ltd., Montreal.
Commercial Trunk Co., Ltd., London, Ont.
Eveleigh, J., & Co., Ltd., Montreal, Que.
Fournier, J. E., Montreal, Que.
Gignac, J. H., Ltd., Quebec, Que.
Great West Saddlery Co. Ltd., The, Winnipeg, Man.
Kelly's Ltd., Montreal, Que.
Lamontagne, Ltd., Montreal, Que.
Langmuir, The M., Manfg. Co. of Toronto, Ltd., Toronto, Ont.
McBrine, The L., Co., Ltd., Berlin, Ont.
McLeod, Hawthorne Co., Ltd., Montreal, Que.
Norris, F., & Sons, Victoria, B.C.
Stewart, T. A., Winnipeg, Man.
Taylor, G. R., & Co., Winnipeg, Man.

BAIZE.—A coarse woollen cloth used for coverings and wrappers.

BAJRA.—(See **MILLET.**)

BALACHONG.—A compound of small fish and shrimps, seasoned with spices. It is extensively used as a condiment in the East, particularly in China.

BALATA.—A gum obtained in Venezuela and Guiana. (See **GUTTA-PERCHA.**)

BALCONIES, Wrought Iron.

Dennis Wire & Iron Works Co., Ltd., London, Ont.
Shipway Iron, Bell & Wire Mfg. Co., Ltd., Toronto, Ont.
Winnipeg Wire & Iron Works, Winnipeg, Man.

BALEEN.—(See **WHALES.**)

BALE TIES, Wire.

Frost Wire Fence Co., Ltd., Hamilton, Ont.
Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Laidlaw Bale-Tie Co., Ltd., Hamilton, Ont.
Morrison Steel & Wire Co., Ltd., Vancouver.
Steel Co. of Canada, Ltd., Montreal, Que.
Westminster Wire & Nail Co., New Westminster, B.C.

BALLS, Billiard, Bowling and Pool.

Brunswicke-Balke-Collender Co. of Canada, Ltd., Toronto, Ont.
May, Samuel, & Co., Toronto, Ont.

BALLS, Rubber.

anadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.

BALLS, Wood.

Otterville Manfg. Co., Ltd., Otterville, Ont.
Paquet & Godbout, St. Hyacinthe, Que.

BALSAM FIR.—Is primarily a pulpwood species, 95 per cent. of this wood cut in Canada being used for this purpose. It is also used to a slight extent for slack cooperage and rough lumber. The wood is soft, weak, and perishable, but has a long, tough, colorless, fibre, that makes it valuable in papermaking. (See **WOOD.**)

BALSAMS.—Oleo-resinous substances used in medicines and perfumery. The most common are Peruvian balsam, obtained from a tree of the order of the Leguminosae, which grows on the coast of Salvador; balsam of Tolu, which grows in Venezuela, Ecuador, and Brazil; Canada balsam, used for mounting microscopic objects and varnishing water-colors is obtained from a fir; copaiva balsam, derived from various species of copaifera, and shipped chiefly from Bahia, Para ,and Maracaibo. It is used as a medicine, and in the manufacture of printers ink.

BAMBOO.—A huge grass which grows in the East Indies, China, and Japan, and also in the West Indies, whither it is said to have been introduced from the East. There are many varieties of bamboo, some attaining a height of 70 to 100 feet, with a diameter of 15 to 16 inches. To the natives of the East, the bamboo is a most valuable plant. Water-pipes, bridges, furniture, ladders, masts, etc., are made of the stems, while the fibres are woven into mats, ropes, and sails. The young shoots are eaten as a vegetable, and the young roots are made into pickles, which are imported into Europe under the name of achiar. In this country the stems are used for light furniture, walking-sticks, fishing poles, etc.

BANANAS.—An herbaceous plant cultivated through the tropical and sub-tropical regions. Though an herb, its stem, composed of the sheath stalks of leaves, rises sometimes as high as 25 feet. The fruit, in bunches, averaging 25 lbs. in weight, is a valuable food. The unripe fruit is often cooked, especially that of the more mealy kinds. Large quantities of bananas are exported from the West Indies, Central America, and the Canary Islands. The flour is an article of trade, particularly in South America. The Musa Ensete of Abyssinia does not yield an edible fruit, but its stem is cooked as a vegetable. The Musa textilis yields Manila Hemp.

The importations of bananas into Canada for the year ending 31st March, 1914, amounted to $2,663,453.

BANDANAS.—A kind of handkerchief originally made in India, but now exclusively in Great Britain. The handkerchief is first dyed, and the pattern is then made by removing the color with bleaching liquor.

BANDS, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.

BANK NOTES, Bills.

American Bank Note Co., Ottawa, Ont.
British American Bank Note Co., Ltd., Montreal, Que.

BANKUL OIL.—Obtained from the nuts of the Aleurites Triloba, a large tree of the order of Euphorbiaceae. The tree is cultivated in Ceylon, the Moluccas, in several of the South Sea Islands, and in the Hawaii Islands. The nuts, the size of a walnut, contain about 62 per cent. of oil. The Polynesians used the nuts strung on rushes as a means of illumination, and therefore they are well-known as candle-nuts. N.B.—The candle-nut tree must not be confused with the candle tree, so named because of the shape of its fruit.

BAOBAB.—The Monkey Bread tree, a native of tropical West Africa, but now introduced into the East and West Indies. The pounded leaves are used as a medicine. The bark yields a strong fibre, and is used for making ropes and paper.

BARBERS' SUPPLIES.

Jones Brothers & Co., Ltd., Toronto, Ont.
Seely Manfg. Co., Ltd., Windsor, Ont.

BARGES, Steel.

Collingwood Shipbuilding Co., Ltd., Collingwood, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Polson Iron Works, Ltd., Toronto, Ont.
Vickers, Ltd., Canadian, Montreal, Que.

BARECLONA NUTS.—A name for the hazelnuts imported from Spain.

BAREGE.—A thin fabric of silk and wool, named after the town of Bareges, in the Pyrenees, in the neighborhood of which light woollen fabrics, somewhat similar in appearance, are made. Barege, however, is made in Picardy. In England, cotton is sometimes substituted for the silk.

BARILLA.—An impure carbonate of soda obtained from plants growing in salt marshes. In Spain and the Balearic Islands it is obtained from Salsola sativa, in France, chiefly from glass-wort. The manufacture has declined, for soda can now be made from common salt. **(See also KELP.)**

BARIUM SULPHATE.

Canadian Alkali Co., Ltd., The, Windsor, Ont.

BARIUM.—(See BARYTA.)

BARK.—The barks of many trees are used for tanning. Oak barks are most used in Europe, as they contain 7 to 11 per cent. of tannin. Chestnut bark is also esteeemed, and tanners in Spain used the inner bark of the cork oak. Several kinds of oak bark are used in the United States, but the bark most used there and in Canada is that of the hemlock spruce. Bark extracts of mimosa bark, chestnut bark, and pimento twigs are also articles of commerce. **(See also CINCHONA.)**

BARKER.—A machine for taking the bark off pulpwood.

BARKERS, Pulp-wood.

Canadian Barker Co., Ltd., Sault Ste. Marie, Ont.
Hay, The Peter, nife Co., Ltd., Galt, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.

BARLEY.—The most common species of this cereal have four rows of grains in the ear. There is also a specie with six rows and one with two. Barley has a wider range than any other cereal, being better able to endure low temperatures and humidity and ripening in a shorter period. It can be cultivated in Norway and Siberia, as far north as 70 degrees. It prefers, however, a warm and fairly dry climate. In most northern countries of Europe it is used for human food. In Central Europe it is used as food for horses and largely in brewing and distilling. When stripped of its husk and polished, it is known as pearl barley.

The world's production of barley in 1914 amounted to 1,385,808,000 bushels. The following countries were the principal producers:

Russia	419,561,000
United States	194,950,000
Austria-Hungary	142,146,000
Germany	140,000,000
Japan	102,817,000
Spain	72,272,000
Great Britain	66,642,000
France	47,000,000
Algeria and Tunis	39,000,000
Canada	36,201,000

Barley is grown extensively in Canada, where it is used chiefly for malting. During the last ten years the production of barley in the Western Provinces has increased by over 9,000,000 bushels. **(See BEER.)**

BARLEY, Pot and Pearl.

Archibald Cereal Co., Ltd., Woodstock, Ont.
Canada Flour Mills Co., Ltd., Chatham, Ont.
Canada Malting Co., Ltd., The, Toronto, Ont.
Canadian Cereal & Flour Mills, Ltd., Toronto.
Dow Cereal & Milling Co., Ltd., Neepawa, Man.
Empire Flour Mills, Ltd., St. Thomas, Ont.
Mackay, John, Co., Ltd., Bowmanville, Ont.

BARRELS Apple, Flour, etc.

Alberts Box Co., Ltd., Calgary, Alta.
Butcher, F. E., St. Mary's, Ont.
Canada Wood Specialty Co., Ltd., Orillia, Ont.
Cargill, H. & Son, Cargill, Ont.
Drader, W. M., Chatham, Ont.
Empire Flour Mills, Ltd., St. Thomas, Ont.
Hantsport Fruit Basket Co., Hantsport, N.S.
Landreville, J., & Son, Toronto, Ont.
London & Petrolia Barrel Co., London, Ont.
Manitoba Cooperage Co., Ltd., Winnipeg, Man.
Pincombe, R. M. Strathroy, Ont.
Starke Cooperage Co., Montreal, Que.
Taylor & White, St. John, N.B.
Thompson, The W. R., Co., Ltd., Teeswater, Ont.
Trenton Cooper Mills, Ltd., Trenton, Ont.
Zimmerman Bros., Tavistock, Ont.

BARRELS, Beer, Vinegar, Oil, etc.

London & Petrolia Barrel Co., Ltd., London, Ont.
Thompson, The W. R., Co., Teeswater, Ont.

BARRELS, Fish.

Kavanagh & Sons, Halifax, N.S.
London & Petrolia Barrel Co., Ltd., London, Ont.
Whitman, Arthur, W., Halifax, N.S.

BARRELS, Foundry Tumbling.

Acme Stamping & Tool Works, Limited, Hamilton, Ont.
Hamilton Facing Mill Co., Ltd., Hamilton, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.

BARRELS, Steel.

Beath, W. D., & Son, Ltd., Toronto, Ont
Fairgrieve Metal & Stamping Co., Toronto.
Steel Trough & Machine Co., Ltd., The, Tweed, Ont.
Winnipeg Steel Granary & Culvert Co., Ltd., Winnipeg, Man.

BARRELS, Welded (Gasoline).

Winnipeg Steel Granary & Culvert Co., Ltd., Winnipeg, Man.

BARRETTES.

Dominion Comb & Novelty Co., Warwick, Que.
McComisky, R. B., & Co., Granby, Que.
Smith D'Entremont Co., Ltd., The, Toronto.

BARRWOOD.—(See CAMWOOD.)

BARS, Angle.

Alberta Rolling Mills, Ltd., Medicine Hat, Alta.
Canada Steel Co., Ltd., Hamilton, Ont
Hamilton Bridge Works Co., Ltd., The, Hamilton, Ont.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.
Steel & Radiation, Ltd., Toronto, Ont.
Structural Steel Co., Ltd., Montreal, Que.

BARS, Crow, Claw, Tramping Pinch and Draw.

Canada Axe & Harvest Tool Manfg. Co., Ltd., Montreal, Que.
Canadian Steel Foundries, Ltd., Montreal, Que.
Coghlin, B. J., Co., Ltd., Montreal, Que.
Cumming, J. W., & Son, Ltd., New Glasgow, N.S.
Miller Brothers & Sons, Ltd., Montreal, Que. N.S.
Welland Vale Manfg. Co., Ltd., The, St. Catharines, Ont.

BARS, Metal, Storefront and Corner.

British Columbia Iron, Wire & Fence Co., Vancouver, B.C.
Hobbs Manfg. Co., Ltd., The, London, Ont.
Morrison, The James, Brass Manfg. Co., Ltd., Toronto, Ont.
Tuttle & Bailey Manfg. Co., Bridgeburg, Ont.

BARS, Steel Merchant.

Alberta Rolling Mills, Ltd., Medicine Hat, Alta.
Canada Steel Co., Ltd., Hamilton, Ont.
Canadian Steel Foundries, Ltd., Welland, Ont.
Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Tacoma Steel Co., Van Anda, B.C.

BARS, Steel Reinforcement, Twisted and Deformed.

Canada Steel Co., Ltd., Hamilton, Ont.
Steel Co. of Canada, Ltd,. Hamilton, Ont., and Montreal, Que.
Steel & Radiation, Ltd., Toronto, Ont.
Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.

BARS, Steel, Round and Square.

Canada Steel Co., Ltd., Hamilton, Ont.
Canadian Car and Foundry Co., Ltd., Montreal , Que.
Dominion Iron & Steel Co., Ltd., Sydney, N.S.
Lake Superior Corporation, The, Sault Ste. Marie, Ont.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.

BARS, Tie, Switch and Splice.

Canadian Steel Foundries, Ltd., Montreal, Que.
Coghlin, B. J., Co., Ltd., Montreal, Que.

BARYTA, or Barytes.—Oxide of barium, obtained from heavy spar (sulphate of barium), and witherite (carbonate of barium). Hamburg White, Dutch White, and Venice White are mixtures of sulphate of baryta and white lead. Large quantities of them are used in glass, porcelain and colour manufactures. Germany is a large producer, and the mineral is also worked in the United States and England. It is mined to some extent in Canada.

BARYTA PRODUCTS.

Barytes, Ltd., Halifax, N.S.
Silica Barytic Stone Co., Ingersoll, Ont.

BASES, Boiler.

Don Foundry Co., Toronto, Ont.
Hamilton, William, Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Leonard, E., & Sons, London, Ont.
Matheson, I, and Co., Ltd., New Glasgow, N.S.

BASILS.—A name for tanned sheep-skins.

BASINS, Vitreous China.

Canadian Trenton Potteries Co., Ltd., St. John's,
Dominion Sanitary Pottery Co., St. John's, Que.

BASKETS.

Ben Hur Manufacturing Co., Ltd., Hamilton, Ont.
Dalton, J. W., Ltd., Grimsby, Ont.
Erie Basket Co., Ltd., Leamington, Ont.
Glover, W. T., Manfg. Co., Ltd., Owen Sound.
Holland, G. A., & Son, Co., Montreal, Que.
Keenan Woodenware Manfg. Co., Ltd., Owen Sound, Ont.
Oakville Basket Co., Oakville, Ont.
Reid & Piott, Beamsville, Ont.
Thomas Brothers, Ltd., St. Thomas, Ont.

BASKETS, Bottle.

Alberta Box Co., Ltd., Calgary, Alta.
Freyseng Cork Co., Ltd., The, Toronto, Ont. and Montreal, Que.
Thomas Brothers, Ltd., St. Thomas, Ont.

BASKETS, Bread.

Fletcher Manfg. Co., Ltd., Toronto ,Ont.
Thomas Brothers, Ltd., St. Thomas, Ont.

BASKETS, Wire.

Andrews Wire Works of Canada, Ltd., Watford, Ont
Canada Wire & Iron Goods Co., Hamilton, Ont.
Greening, The B., Wire Co., Ltd., Hamilton.
Lamb, H. R., Fence Co., Ltd., London, Ont.
Page Wire Fence Co., Ltd., Walkerville, Ont.
Wire Woven Manfg. Co., Ltd., Woodbridge, Ont.

BASSWOOD.—Basswood heads the list of what might be termed soft hardwoods. The wood is soft, light, weak, and non-durable, with a coarse grain, a fine even texture, and a lack of taste and odour. It is easily worked, does not warp or check, and is very tough, holds nails, and takes paint well. The greatest quantities are used for cooperage in box factories.

BAST, or Bass.—The inner soft bark of a tree. In Russia mats are made of the bast of the lime, which are exported in large quantities, and the same bast is used in tne south of Europe to make hats. (See also PIASSAVA.)

BASTARDS.—Moist sugar mixed with some molasses, which remains after loaf-sugar has been made.

BATHS Enameled, Galvanized and Japanned.

Amherst Foundry Co., Ltd., Amherst, N.S.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Standard Ideal Co., Ltd., Port Hope, Ont.

BATHING CAPS, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Walpole Rubber Co., Ltd., Montreal, Que.

BATHING SUITS, Lustre and Fancy.

Allen Manufacturing Co., Ltd., Toronto, Ont.
Canadian Underskirt Co., Ltd., Toronto, Ont.
Home and Watts, Ltd., Toronto, Ont.

BATHING SUITS, Knitted.

Eagle Knitting Co., Ltd., (operated by J. R. Moodie & Sons, Ltd.), Hamilton, Ont.

BATH BRICKS.—Bricks weighing about 3 lbs. each, made of a calcareous earth found near Bridgewater, Eng. They are used for cleaning and polishing.

BATH STONE.—A creamy-colored limestone. It is easily dressed, but is not very durable.

BATISTE.—The French name for cambric.

BATS, Cricket and Baseball.

Bentley & Anderson, Niagara Falls, Ont.
Hilborn Co., The, Ayr, Ont.
Lachute Shuttle Co., Ltd., Lachute Mills, Que.
Lally Lacrosse Mfg. Co., The, Cornwall, Ont.
Reach, The A. J., Co., Toronto, Ont.
St. Mary's Wood Specialty Co., Ltd., St. Mary's, Ont.

BATTERIES, Electric.

Canadian Carbon Co., Ltd., Toronto, Ont.
Canadian General Electric Co., Ltd., Toronto.
Canadian National Carbon Co., Ltd., Toronto.
Forman, John, Montreal, Que.
Starr, John, Son & Co., Ltd., Halifax, N.S.
Tate Electrics, Ltd., Montreal, Que.

BATTERIES, for Explosives.

Canadian Explosives, Ltd., Montreal, Que.

BATTERIES, Medical.

Canadian Carbon Co., Ltd., Toronto, Ont.
Canadian General Electric Co., Ltd., Toronto.

BATTERIES, Storage.

Canadian Crocker-Wheeler Co., Ltd., The, St. Catharines, Ont.
Canadian General Electric Co., Ltd., Toronto.
Croftan Storage Battery Co., Toronto, Ont.
Triple Tread Mfg. Co., Ltd., Winnipeg, Man.

BATTING.—(See WOOL and COTTON.)

BATTING, Wool and Cotton.

Bauer, A., & Co., Waterloo, Ont.
Dominion Wadding Co., Ltd., Montreal, Que.
Montreal Blanket Co., Montreal, Que.
National Mattress Felt and Batting Co., Toronto.
Welwood, F. J., & Co., Ltd., Winnipeg, Man.

BAUXITE.—A hydrated oxide of aluminium from which the aluminium is extracted. It takes its name from Baux in France, and it is also found in Ireland, Southern United States and Italy.

BAY.—The fruits of the sweet bay are used in veterinary medicine. A concrete oil is extracted from them, and the leaves are used in condiments. **(For BAYBERRY see CANDLEBERRY.)**

BAY SALT.—The impure salt obtained by evaporation from sea-water.

BEDELLIUM—A gum-resin, weaker than myrrh, but more acrid. It is obtained in India and in Senegal. The Dum Palm yields the Egyptian Bedellium.

BEACONS.

International Marine Signal Co., Ltd., Ottawa.

BEADS.—A large quantity of beads are made, especially in Italy, Holland, France and Germany, of glass, porcelain, coral, etc. Most of them are shipped to Africa for barter with the natives. Several kinds of ornamental seeds and nuts are strung and used as necklaces, bracelets, etc.

BEADINGS, Wood.

Knechtel, the S., Wood-Turning Co., Southampton, Ont.
Woltz Moulding Mfg. Co., Ltd., Toronto, Ont.

BEAM TREE.—The White Beam, allied to the Service Tree, yields a yellowish, close-grained wood, much used for turning.

BEAMS.—(See **IRON AND STEEL.**)

BEAMS, Bridge, Culevrt, and Structural.

Algoma Steel Bridge Co., Ltd., Winnipeg, Man.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Bridge Co., Ltd., Walkerille, Ont.
Corbet Foundry Co., The, Owen Sound, Ont.
Dominion Architectural Iron Works, Ltd., Montreal, Que.
Dominion Bridge Co., Ltd., Montreal, Que.
Hamilton Bridge Works Co., Ltd., The, Hamilton, Ont.
MacKinnon, Holmes & Co., Ltd., Sherbrooke, Q.
National Bridge Co. of Canada, Ltd., Montreal.
Peterson Bros. Iron Works, Winnipeg, Man.
Phoenix Bridge & Iron Works, Ltd., The, Montreal, Que.
St. Lawrence Bridge Co., Ltd., Montreal, Que.
Saskatchewan Bridge & Iron Co., Ltd., Moose Jaw, Sask.
Steel & Radiation, Ltd., Toronto, Ont.
Structural Steel Co., Ltd., Montreal, Que.
Westminster Iron Works, New Westminster, B.C.

BEANS.—By this name the seeds of the common or broad bean the French or Kidney Bean, and the Scarlet Runner, are commonly intended. Broad Beans are exported from Egypt, Russia, Italy, Turkey and the United States. Bean meal is given as fodder to horses and cattle. Haricot beans are in France preserved in jars, and the dried beans are extensively used as food. In tropical America beans are a very favorite dish. The fruits of various other leguminous plants are called beans, as Soya Beans, Tonka Beans, etc., and of plants of other orders.

Considerable beans are grown in Canada, particularly in Ontario.

The Canadian crop in 1910 amounted to 826,281 bushels.

BEAR.—Bear skins are exported in large numbers from America. They are chiefly skins of the Black Bear, but those of the White Polar Bear, and of the Grizzly Bear, are also used. In the Old World, the Brown Bear found in Northern Russia and Siberia, yields a valuable fur.

BEAR GRASS.—(See **YUCCA.**)

BEARINGS, Ball.

Chapman Double Ball-Bearing Co., of Canada, Ltd., Toronto, Ont.
Morrow, John, Screw & Nut Co., Ltd., Ingersoll, Ont.

BEARINGS, Roller.

Morrow, John, Screw & Nut Co., Ltd., Ingersoll, Ont.
Plant, W. P., Hastings, Ont.

BEARINGS, Roller Side, Railway Car.

Canadian Brake Shoe Co., Ltd., Sherbrooke, Que.
Canadian Bronze Co., Ltd., Montreal, Que.
Canadian Car & Foundry Co., Ltd., Montreal.
Lumen Bearing Company, West Toronto, Ont.

BEARINGS, Self-Oiling.

Chapman Double Ball-Bearing Co., of Canada, Ltd., Toronto, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Matheson, L., & Co., Ltd., New Glasgow, N.S.

BEARINGS, Shaft.

Calgary Iron Works, Ltd., The, Calgary, Alta.
Canada Iron Corporation, Ltd., Montreal, Que.
Canadian Bond Hanger & Coupling Co., Ltd., Alexandria, Ont.
Chapman Double Ball-Bearing Co., of Canada, Ltd., Toronto, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Letson & Burpee, Ltd., Vancouver, B.C.
Matheson I., & Co., Ltd., New Glasgow, N.S.
Plessisville Foundry Co., Ltd., The, Plessisville, Que.
Waterous Engine Works Co., Ltd., Brantford.

BEATERS, Carpet.

Thomas Bros., Ltd., St .Thomas, Ont.
Wright, E. T. & Co., Hamilton, Ont.

BEATERS, Pulp.

Waterous Engine Works Co., Ltd., Brantford.

BEAVER.—A rodent inhabiting the streams of Russia, Poland, Siberia, and North America. They are hunted for their skins, especially in Canada and Alaska.

BECHE DE MER.—A sea-slug, called Trepang in the East. Several species of Holothuriæ are known by this name. They are caught in the Eastern Archipelago, and off the north coast of Australia, and are imported into China as an article of food.

BEDDA NUTS.—Small Myrobolans.

BEDDING.—The making of beds and bedding is a considerable industry in Canada.

BEDDING.

Alberta Bedding Co., Ltd., Calgary, Alta.
Berlin Bedding Co., Ltd., Berlin, Ont
Brandon Mattress Factory, Brandon, Man.
Canadian Feather and Mattress Co., Ltd., Toronto, Ont.
Dalzell, J. C., St. John, N.B.
Dominion Bedding Co., Belleville, Ont.
Hutchings & Co., St. John, N.B.
Kilgour, J. W., & Bro., Ltd., Beauharnois, Que.
Mason, F. W., & Son, St. Andrews, N.B.
Meyer Bros., Toronto, Ont.
Munro Steel and Wire Works, Ltd., Winnipeg.
Ontario Spring Bed & Mattress Co., Ltd., London, Ont.
Standard Bedding Co., Toronto, Ont.
Thompson Mattress Co., The, Montreal, Que.
Whitworth & Restall, Toronto, Ont.

BEDS AND PINS, Bowling Alley.

Brunswicke-Balke-Collender Co. of Canada, Ltd., Toronto, Ont.
May, Samuel, & Co., Toronto, Ont.
Paquet & Godbout, St. Hyacinthe, Que.

BEDS, Camp.

Ferguson, John, & Sons, London, Ont
Otterville Mfg. Co., Ltd., Otterville, Ont.

BEDS Hospital.

Anchor Bedding Co., Ltd., Toronto.
Ontario Spring Bed & Mattress Co., Ltd., London, Ont.

BEDS, Spring.

Dixon Manfg. Co., Calgary, Alta.
Fournier, Edouard, Montreal, Que.
Gale, George, & Sons, Waterville, Que.
Ives Modern Bedstead Co., Ltd., Cornwall, Ont.
Leggett & Platt Spring Bed Co., Ltd., Windsor, Ont.
Munro Steel & Wire Works, Ltd., Winnipeg.
Ontario Spring Bed & Mattress Co., Ltd., London, Ont.
Quality Beds, Ltd., Welland, Ont.
St. Lawrence Furniture Co., Riviere du Loup, Que.

BEDS, Wooden.

Canada Furniture Manfrs. Ltd., Woodstock, Ont.
Elora Furniture Co., The, Elora, Ont.
Malcolm & Souter Furniture Co., Ltd., Hamilton, Ont.
Spiesz Furniture, Ltd., The, Hanover, Ont.
Toronto Furniture Co., Ltd., Toronto, Ont.

BEDSTEADS, Iron and Brass.

Alaska Bedding Co., Ltd., Winnipeg, Man.
Alaska Feather & Down Co., Ltd., Montreal.
Anchor Bedding Co., Ltd., Toronto.
Canada Furniture Manfrs., Ltd., Woodstock, Ont.
Denby Mfg. Co., Calgary, Alta.
Gale, George, & Sons, Waterville, Que., and Winnipeg, Man.
NIdeal Bedding Co., Ltd., Toronto, Ont.
Ives Modern Bedstead Co., Ltd., Cornwall, Ont.
Ontario Spring Bed & Mattress Co., Ltd., London, Ont.
Quality Beds, Ltd., Welland, Ont.
Shurly-Dietrich Co., Ltd., Galt, Ont.
Stamco, Ltd., Saskatoon, Sask.
Standard Bedding Co., Toronto, Ont.
Standard Bedstead Co., Ltd., The, Victoriaville, Que.
Stratford Bed Co., Stratford, Ont.
Weisglass, S., Ltd., Montreal, Que.

BEE-KEEPING.—The keeping of bees for the production of honey and beeswax, is a considerable industry in Canada.

BEE-KEEPERS' SUPPLIES.

Ham & Knott Co., Ltd., The, Brantford, Ont.

BEECH.—Is Canada's cheapest hardwood. While the wood is hard, strong, tough and moderately stiff, it is often cross-grained, very perishable, and most liable to shrink, warp, and check even after seasoning. Most of the cut is used for firewood and for distillation purposes. Most of the lumber made from this wood is used for hardwood flooring, where it takes a high polish. The fruit of the beech, viz., beech nut, is edible. (See **WOOD.**)

BEEF.—(See CATTLE.)

BEEF AND BEEF PRODUCTS.

Burns, P. & Co., Ltd., Calgary, Alta.
Davies, The William, Co., Ltd., Toronto, Ont.
Dominion Abattoir, Ltd., London, Ont.
Gainers, Ltd., Strathcona, Alta.
Gallagher-Holman-Lafrance Co., Ltd., Winnipeg, Man.
Gordon, Ironsides & Fares Co., Ltd., Winnipeg.
Gunn's Ltd., Toronto, Ont.
Harris Abattoir Co., Ltd., The, Toronto, Ont.
Hunnisett, Frank, Jr., Toronto, Ont.
Imperial Packing Co., Ltd., Woodstock, N.B.
Ingersoll Packing Co., Ltd. Ingersoll, Ont.
Matthews-Laing, Ltd., The, Montreal, Que.
Montreal Abattoirs, Ltd., Montreal, Que.
O'Keefe & Drew Abattoir Co., Ltd., Chatham, Ont.
Russell, Baker Packing Co., Prince Albert, Sask.
Swift Canadian Co., Ltd., Toronto.
Vogel Meat & Packing Co., Ltd., Strathcona, Alta.

BEEF, Fluid.

Bovril, Ltd., Montreal, Que.
Food Specialists of Canada, Ltd., Montreal.
Mason's, Ltd., Toronto, Ont.

BEER.—A fermented drink made from various cereals. Barley malt is the best material, but raw grain, including corn, rice and wheat are often used as well as glucose, sucrose, maltodextrins, saccharine, etc. In Russia rye is the chief grain from which Kvascs is made. Different types of beer are produced by different processes. Bitter ales and beers are racked into casks in which are placed some hops of very good quality. Mum, a beer made chiefly from wheat meal, and spruce beer from treacle and an extract of spruce fir are especially German productions.

The grain is first malted, that is, steeped in water sufficiently to cause it to germinate. When the growth has advanced far enough, the sprouted grain is dried in a kiln. The object of malting is to convert the starch of the grain into sugar and thus prepare it for brewing. There are three principal kinds of malt according to the methods of drying the sprouted grain, namely, pale, amber and brown or porter malt.

The next process is generally known as brewing. This consists in dissolving out the fermentable substances in the malt with warm water. This infusion is then evaporated by boiling, hops having been added to preserve it. The liquor is then fermented. The resultant product, commonly known as ale or lager beer is shipped in kegs or barrels. The annual importations of malt into Canada amount to approximately 15,000 bushels, and the importation of ale and beer to about 10,000 gallons. Most of the Canadian requirements are supplied by local breweries.

BEER GINGER.

Bigelow & Hood, Truro, N.S.
Brandon Brewing Co., Ltd., Brandon, Man.
Christin, J., & Co., Incorporated, Montreal.
Girouard, H., & Co., Montreal, Que.

BEER, Lager.

Barrie Brewing Co., Barrie, Ont.
Berlin Lion Brewery, Ltd., Berlin, Ont.
Bixel Brewing & Malting Co., Ltd., Brantford.
Blackwood's Ltd., The, Winnipeg, Man.
Brading Brewing Co., Ltd., Ottawa, Ont.
Brandon Brewing Co., Ltd., Brandon, Man.
Brantford Brewing Co., Ltd., Brantford, Ont.
British American Brewing Co., Ltd., Windsor.
British Columbia Brewing Co., Ltd., Vancouver.
Calcutt Brewing & Malting Co., Ltd., Peterborough, Ont.
Calgary Brewing & Malting Co., Ltd., Calgary, Alta.
Capital Brewing Co., Ltd., Ottawa, Ont.
Carling Brewing & Malting Co., of London, Ltd., London, Ont.
Copland Brewing Co., Ltd., Toronto, Ont.
Edmonton Brewing & Malting Co., Ltd., Edmonton, Alta.
Empire Brewing Co., Ltd., Brandon, Man.
Enterprise Brewing Co., The, Revelstoke, B.C.
Fernie-Fort Steele Brewing Co., Ltd., Fernie, B.C.

Frontenac Breweries Ltd., Montreal Que.
Golden Lion Brewing Co., Ltd., Prince Albert, Sask.
Golden West Brewing Co., Ltd., Calgary, Alta.
Grant's Spring Brewery Co., Ltd., Hamilton.
Halifax Breweries Ltd., Halifax, N.S.
Hamilton Brewing Association, Ltd., Hamilton.
Hoeschen-Wentzler Brewing Co., Ltd., Saskatoon, Sask.
Jones, Simeon, Ltd., St. John, N.B.
Kakabeka Falls Brewing Co., Ltd., Fort William, Ont.
Kormann Brewery, Ltd., Toronto, Ont.
Kuntz Brewery, Ltd., The, Waterloo, Ont.
Labatt, John, Ltd., London, Ont.
Lethbridge Brewing & Malting Co., Ltd., The, Lethbridge, Alta.
McCarthy, J., & Sons, Co., Ltd., Prescott, Ont.
McDonald & Shea, Winnipeg, Man.
Moose Jaw Brewing & Malting Co., Ltd., Moose Jaw, Sask.
National Breweries, Ltd., The, Montreal, Que.
Nelson Brewing Co., Ltd., B.C.
New Ontario Brewing Co., Ltd., North Bay, Ont.
Nova Scotia Brewing Co., Halifax, N.S.
O'Keefe Brewery Co. of Toronto, Ltd., Toronto.
Phoenix Brewing Co., Ltd., Phoenix, B.C.
Ready's Breweries, Ltd., St. John, N.B.
Regina Brewing Co., Ltd., Regina, Sask.
Reinhardt Salvador Brewery, Ltd., Toronto.
Riedle, A. W., Winnipeg, Man.
St. Lawrence Brewery Co., Ltd., Cornwall, Ont.
Silver Spring Brewing Co., Ltd., Victoria, B.C.
Sleeman & Sons, Ltd., Guelph, Ont.
Soo Falls Brewing Co., Ltd., Sault Ste. Marie, Ont.
Strathcona Brewing & Malting Co., Ltd., Edmonton South, Alta.
Sudbury Brewing & Malting Co., Ltd., Sudbury, Ont.
Victoria Phoenix Brewing Co., Ltd., Victoria,
Taylor & Bate, St. Catharines, Ont.
B.C.
Walkerville Brewing Co., Ltd., Walkerville, Ont.
Westminster Brewery, New Westminster, B.C.

BEER, Temperance.

Brasserie Champlain, Limitee, La, Quebec.
Drewry, Edward L., Ltd., Winnipeg, Man.
Empire Brewing Co., Ltd., Brandon, Man.
Golden Lion Brewing Co., Ltd., Prince Albert, Sask.
Hoeschen-Wentzler Brewing Co., Ltd., Saskatoon, Sask.
Kuntz Brewery, Ltd., The, Waterloo, Ont.
Nova Scotia Brewery, Halifax, N.S.

BEESWAX.—Bees are kept and the wax collected in most countries of Europe. Wax is also exported from America, many parts of Africa, including Madagascar, and from India, Asia Minor, etc. East Indian wax is of poor quality, being the produce of wild bees. The wax is exported either in its natural condition, when it is yellow, red, or even brown or grey, and bleached. It is bleached by being formed into thin strips, spread in the sun, and watered, or by the aid of chemicals. It is used for candles, floor polish, in varnishes, calico-printing, etc.

BEESWAX.

Baillargeon, F., St. Constant, Que.

BEETROOT.—The common beet is cultivated in gardens, and its red tap-root is eaten as a vegetable. It is the same species which is cultivated for the extraction of sugar. Mangol Wurtzel is a coarser variety grown as food for cattle. (See **SUGAR.**)

BEIGE, the French name for undyed wools, and also given to fabrics partly of dyed and partly of undyed wool.

BELLADONNA, or Deadly Nightshade, a herbaceous plant of the order Solanaceæ, which grows in all parts of Central and Southern Europe. Belladonin and atropin, alkaloids obtained from all parts of the plant, are highly poisonous. They are used as medicines, internally in small doses, and externally in the form of liniments and plasters.

BELLOWS.

Hamilton Facing Mill Co., Ltd., Hamilton, Ont.

BELLS, Door.

Belleville Hardware & Lock Mfg. Co., Ltd., Belleville, Ont.
Berlin Racycle Mfg. Co., Ltd., Berlin, Ont.
Garth Co., The, Montreal, Que.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Peterborough Lock Mfg. Co., Ltd., The, Peterborough, Ont.
Springer Lock Co., Ltd., Belleville, Ont.

BELLS, Electric.

Canadian General Electric Co., Ltd., Toronto.
Garth Company, The, Montreal, Que.

BELLS, Sleigh.

Clark, C. O., & Bro., Montreal, Que.

BELLS, Ship and Fire Reel.

Clark, C. O., & Bro., Montreal, Que.
Garth Company, The, Montreal, Que.
Lumen Bearing Co., Toronto, Ont.
Piper, Hiram, L., Co., Ltd., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Wilson & Cousins, Toronto, Ont.

BELTING, CAMEL HAIR.

Reddaway, F. & Co., Montreal, Que.

BELTING, Chain.

Fittings, Ltd., Oshawa, Ont
Jeffrey Mfg. Co., Montreal, Que.
Jones & Glassco, Montreal.
Perrin, W. R., & Co., Ltd., Toronto.

BELTING Dress and Skirt.

Canada Label & Webbing Co., Ltd., Toronto.
Peters, J. Henry, Co., Toronto, Ont.

BELT FASTENERS.

Reddaway, F. & Co., Montreal, Que.

BELTING, Leather.

Beardmore & Co., Toronto, Ont
Goodhue, J. L., & Co., Ltd., Danville, Que.
Jones & Glassco, Montreal, Que.
McArthur, J. D., & Co., Brockville, Ont.
McLaren, D. K., Ltd. Montreal, Que.
McLaren, The J. C., Belting Co., Ltd., Montreal.
Sadler & Haworth, Montreal, Que.

BELTING, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
Goodyear Tire & Rubber Co. of Canada, Ltd., Toronto, Ont.
Gutta-Percha & Rubber, Ltd., Toronto, Ont.
Reddaway, F. & Co., Montreal.

BELTING, Stitched Cotton Duck.

Dominion Belting Co., Ltd., Hamilton, Ont.
Reddaway, F. & Co., Montreal, Que.

BELTS, Leather (Ladies' and Men's).

Edwards, J. E., & Sons, Toronto, Ont.
Flett, Lowndes & Co., Ltd., Toronto, Ont.
General Leather Goods, Ltd., Toronto, Ont.
Hall's, Ltd., Brockville, Ont.
Kelly's, Ltd., Halifax, N.S.
Montreal Suspender & mbrella Mfg. Co., Montreal, Que.
Reid, A. T., Co., Ltd., Toronto, Ont.
Sale, Julian, Leather Goods Co., Ltd., Toronto.
Western Leather Goods Co., Ltd., Toronto, Ont.
Winnett & Wellinger, Ltd., Toronto, Ont.

BELTS, Silk, Etc.

Canada Label & Webbing Co., Ltd., Toronto.
Colonial Weaving Co., Ltd., Peterborough, Ont.
Daniel, F. C., & Co., Toronto, Ont.
Fairbairn, R. D., Co., Ltd., Toronto, Ont.
Flett, Lowndes & Co., Ltd., Toronto, Ont.
Globe Suspender Co., Rock Island, Que.
Ladies' Wear, Ltd., Toronto, Ont.
Peters, J. Henry, Co., Toronto, Ont.
Rea, A. E., & Co., Ltd., Toronto, Ont.
Reid, A. T., & Co., Ltd., Toronto, Ont.

BELUGA, the white whale. **(See PORPOISE.)**

BENDERS, Rail.

Canadian Steel Foundries, Ltd., Montreal, Que.
Holden Co., Ltd., The, Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.

BENDERS, Tire.

Canadian Buffalo Forge Co., Ltd., Montreal.
Jardine, A. B., & Co., Hespeler, Ont.
London Foundry Co., Ltd., The, London, Ont.
National Machine Co., Brighton, Ont.
Plessisville Foundry Co., Ltd., The, Plessisville, Que.
Smart, The Jas., Mfg. Co., Ltd., Brockville, Ont.
Thompson Mfg. Co., Ltd., The, Grand Bay, N.B.

BENEDICTINE. (See LIQUEURS.)

BENJAMIN. (See BENZOIN.)

BEN NUTS, the fruits of a tree of the order of Capparideæ, and also known as the Horse-radish tree. It grows in India, Java, Egypt, and Arabia.

BENNISEED, a name given in Africa to the seed of the Sesamum.

BENT GOODS.

Ackland, D., & Son, Ltd., Winnipeg, Man.
Canada Wheel Works, Ltd., Merritton, Ont.
Crown Lumber Co., Ltd., Woodstock, Ont.
Finlay, J., & Sons, Co., Norwood, Ont.
Heard, John, & Co., St. Thomas, Ont.
Hore, F. W., & Son, Ltd., Hamilton, Ont.
Loughead Bros., Ltd., Sarnia, Ont.
McKillop, A., & Sons, Ltd., West Lorne, Ont.
McVean, O. & W., Dresden, Ont.
Victoria Wheel Works, Galt, Ont.
Windsor Turned Goods Co., Ltd., Windsor, Ont.

BENZENE or Benzol, a light hydrocarbon obtained by distillation from the lighter oils of coal-tar and petroleum. It is used in the preparation of varnishes, in the cleaning of textile materials, etc. Nitro-benzol is the essence of mirbane or artificial oil of almonds used in perfuming soap.

BENZINE. (See NAPHTHA.)

BENZINE.

British American Oil Co., Ltd., Toronto, Ont.
Crown Oil Refining Co., Ltd., Hamilton, Ont.
Empire Oil Co., Montreal.
Empire Refining Co., Ltd., Wallaceburg, Ont.

BENZOIN, usually known as Gum Benjamin. A gum obtained from a tree which grows in Indo-China, and Sumatra. The best comes from Siam. Benzoin is used in perfumery, pastilles, incense, and in the preparation of soaps and washes. The Compound Tincture or Benzoin is the Friars' Balsam, or Jesuits' Drops, frequently applied to wounds.

BERGAMOT, a species of orange or lime named after Bergama, the ancient Pergamos, in Asia Minor. The tree is now cultivated in Italy and Sicily for the sake of its essential oil, which is manufactured at Palermo and Messina. The oil is used in pomades, essences, and perfumes.

BERYL, a silicate of aluminium, of greenish, bluish, orange, and yellow tints. It is found in the United States, Brazil, Ceylon, etc. **(See also EMERALD.)**

BETEL.—For Betel-Nut **(See ARECA-NUT.)** The betel leaf is the leaf of the Chavica betel, of the order Piperaceæ, indigenous to the Eastern Archipelago, and cultivated in India, Burma, Siam, and other countries. It is used in chewing betel-nut, the nut with some shell lime being wrapped in a betel leaf.

BHANG, the Indian name for hemp. In the East the leaves and stems are used as a narcotic, being either smoked or made into drinks and electuaries.

BIBBS, Lever, Compression.

Garth Co., The, Montreal, Que.
Mitchell, The Robt., Co., Ltd., Montreal.
Mueller, H., Mfg. Co., Ltd., Sarnia, Ont.
National Brass, Ltd., The, London, Ont.

BIBS, Infants'.

Montreal Quilting Co., Ltd., Montreal, Que.
Neckwear & Fancy Goods Co., Ltd., St. John, N.B.

BICYCLES.

Berlin Racycle Mfg. Co., Ltd., Berlin, Ont.
Canada Cycle & Motor Co., The, West Toronto, Ont.
Lochrie, James, Toronto, Ont.
Planet Bicycle Co., Toronto, Ont.

BILLETS, BLOOMS and SLABS.

Dominion Iron & Steel Co., Ltd., Sydney, N.S.
Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Steel Co., of Canada, Ltd., Hamilton, Ont.

BINDER TWINE.

Brantford Cordage Co., Ltd., Brantford, Ont.
Consumers Cordage Co., Ltd., Montreal, Que.
Plymouth Cordage Company, Welland, Ont.

BINDERS, Load.

Beatty Bros., Ltd., Fergus, Ont.
Canadian Warren Axe & Tool Co., Ltd., St. Catharines, Ont.

BINDING Mattress.

Canadian Textile & Weaving Co., Ltd., Guelph, Ont.
Hamilton Cotton Co., Hamilton, Ont.

BINDING, Shoe.

Hamilton Cotton Co., Hamilton, Ont.

BINDINGS, Skirt and Coat.

Belding-Paul-Corticelli, Ltd., Montreal, Que.
Narrow Fabric Co., The, Toronto, Ont.
Peters, J. Henry, Co., Toronto, Ont.
Rea, A. E., & Co., Ltd., Toronto, Ont.

BINNACLES.

Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

BINOCULARS.

Gowlland Optical Co., Ltd., Montreal.

BINS, Grain (Portable).

Canadian Metal Shelter Company, Winnipeg.

BINS, Ore.

MacKinnon, Holmes, & Co., Ltd., Sherbrooke.

BINS, Stone (Portable, Mounted).

American Road Machine Co. of Canada, Ltd., Goderich, Ont.
General Car & Machinery Worksfi Montmagny, Que.

BIRCH.—In the Canadian industries there are three species of this wood used, viz., sweet birch, used for hardwood flooring and furniture; yellow birch, used largely for wood distillation; white birch, which seldom grows to timber size, used for turnery, spools, and small woodenware. Birch is Canada's most abundant hardwood, and is rapidly coming into use as the more expensive woods are exhausted. It is fairly hard and strong, with a fine grain, is easily worked, takes a high polish, and can be stained to imitate more expensive woods like mahogany, cherry, and walnut. "Wavy" birch is an accident form due to cross grain. It is highly prized for ornamental work. Another use for this wood is the making of half-tone blocks. (See **WOOD.**)

BIRD SEED.

Birdland Society, London, Ont.
McKenzie, A. E. Brandon, Man.
Nicholson & Brock, Toronto, Ont.

BICHROME, bichromate of potash, which is obtained in the form of large red crystals, and is used in dyeing and making painters' colors.

BICYCLES.—According to the census of 1911, there were seven establishments in Canada making these, employing ninety workmen, and with an output of $84,804.

BIRD SEED.—Under this name are included hemp, canary, millet, rape, and poppy seed, sold to feed birds.

BIRD SKINS.—A large quantity is imported into Europe for the decoration of ladies' bonnets. Pheasants, tanagers, birds of Paradise, humming-birds, and the egret or white heron, are sought after for this purpose.

BIRDS' NESTS, the gelatinous nest of the swiftlets of the genus of Collocalia; are imported into China to be used as food.

BISCUITS. (See **CONFECTIONERY.**)

BISCUITS.

Abbott, Grant & Co., Ltd., Brockville, Ont.
Acton Biscuits Co., Ltd., Acton, Que.
Bean & Westlake, Woodstock, Ont.
Christie, Brown & Co., Ltd., Toronto, Ont.
Crothers, W. J., Co., Ltd., Kingston, Ont.
Doerr C. H., & Co., Berlin, Ont.
Dominion Biscuit Co., Ltd.. Vancouver, B.C.
Godin, J. N., Three Rivers, Que.
Hamilton, G. J., & Sons, Pictou, N.S.
Hamm Bros., St. John, N.B.
Hetherington, T., Quebec, Que.
Lynch's Ltd., Sydney, N.S.
McCormick Mfg. Co., Ltd., The, London, Ont.
Marven, J. A., Ltd., Moncton, N.B.
Masson & St. Germain, Montreal, Que.
McCormick Mfg., Co., Ltd., The, London, Ont.
McLauchlan & Sons, Co., Ltd., Owen Sound, Ont.
Meyer, The A., Co., Ltd., St. Catharines, Ont.
Moirs, Ltd., Halifax, N.S. —
Montreal Biscuit Co., Montreal, Que.
Mooney Biscuit & Candy Co., Ltd., Montreal, Que., Stratford, Ont., and Winnipeg, Man.
National Biscuit & Confectionery Co., Ltd., Vancouver, B.C.
Paulin Chambers Co., Ltd., The, Winnipeg, Man.
Perrin, D. S., & Co., Ltd., London, Ont.
Popham Bros., Victoria, B.C.
Ramsays, Ltd., Montreal, Que.
Rankine, T., Sons, St. John, N.B.
Rowell(T., & Son, Sherbrooke, Que.
Telfer Bros., Ltd., Collingwood, Ont.
Viau & Frere, Montreal, Que.
Weston, Geo., Ltd., Toronto, Ont.
Woodward, G. H., & Co., Cannington, Ont.

BISMUTH, a white metal with a tinge of red, found in most of the countries of Europe, Siberia, and America. It is used to make fusible alloys, one of which is composed of two parts of bismuth, one of lead, and one of tin. The trioxide is used in porcelain manufacture, the subnitrate, known as Pearl White, or Powder, and Blanc d'Espagne, is used as a cosmetic, and, as well as the subcarbonate, in medicine.

BITS, Auger, Solid Stem and Machine.

Gilmore, G., Montreal, Que.
Tobin Arms Mfg. Co., Ltd., Woodstock, Ont.

BITTERS, tonic alcoholic drinks, which owe their bitter flavor to orange, quassia, gentian, aloes, etc. Angostura bitters are well known.

BITTERWOOD, a name given to some species of Xylopia of the West Indies. This contains the same bitter principle as the Quassia amara, and now supplies most of the quassia used in medicine.

BITUMEN. (See **ASPHALT.**)

BLACK BEER, another name for spruce beer. (See **BEER.**)

BLACK BOY GUM, the gum obtained from the Australian grass tree. It contains benzoic and cinnamic acids.

BLACKBOARDS.

Globe Furniture Co., Ltd., The, Waterloo, Ont.
Hendry, The Geo. M. Co., Ltd., Toronto, Ont.

BLACKING, a paste used to impart a black, shining surface to leather. Bone black, some sugar and oil and concentrated sulphuric acid are the constituents. Harness blacking consists of beeswax, turpentine, copal varnish, ivory black, etc. (See **POLISH.**)

BLACK-LEAD, Graphite, or Plumbago, a mineral consisting chiefly of carbon, with the addition of alumina, silica, lime, etc. Generally, graphite is mixed with clay and is made into pencils and crucibles, and used for polishing iron. Ceylon is now the most important source of the mineral, and the quality is fairly good. **(See GRAPHITE.)**

Graphite is found in many parts of the Provinces of Ontario and Quebec. The production in 1913 was 2,162 tons, valued at $90,282.

BLACKWOOD. (See ROSEWOOD.)

BLADDERS, the urinary vessels of animals are exported from America and the continent of Europe in barrels. They are used to contain lard, and other commodities.

BLANKETS.

Baruston Woolen Co., The, Way's Mills, Que.
Bird Woolen Mill Co., Ltd., Bracebridge, Ont.
[illegible], J. & G., Thurso, Que.
Brook Woolen Co., of Simcoe, Ltd., Simcoe, Ont.
Brown, John, Carleton Place, Ont.
Brown & Wigle Co., Ltd., Kingsville, Ont.
Caldwell, Boyd & Co., Ltd., Lanark, Ont.
Cantin, La Cie, et Fils, Warwick, Que.
Chesley Woolen Mills Co., The, Chesley, Ont.
Childerhouse, John, & Co., Eganville, Ont.
Clark Blanket Co., Ltd., The, Dundas, Ont.
Coaticook Woolen Mill Co., Ltd., Coaticook, Que.
Dick John, Ltd., Toronto, Ont.
Dontigny, Philip, Arnprior, Ont.
Glen Woolen Mills, Ltd., Glen Williams, Ont.
Horn Bros., Woolen Co., Ltd., Lindsay, Ont.
Logan Bros., Ltd., Renfrew, Ont.
Lott, Wm., Belleville, Ont.
MacKenzie, Ltd., Ottawa, Ont.
Magog Woolen Mills, Ltd., Sherbrooke, Que.
Midnapore Woolen Mills, Ltd., Midnapore, Alta.
Murphy Eugene, Mount Forest, Ont.
O.Hare & Sons, Midland, Ont.
Ontario Yarn Co., Ltd., The, Markham, Ont.
Oxford Manfg. Co., Ltd., Oxford, N.S.
Penman's Ltd., Paris, Ont.
Randle, James, Meaford, Ont.
Slingsby Mfg. Co., Ltd., The, Brantford, Ont.
Smart-Woods, Ltd., Ottawa, Ont.
Standard Woolen Mills, Ltd., The, Toronto, Ont.
Upton, The G., Company, Ltd., Alliston, Ont.
Walshaw, J., & Sons, Bolton, Ont.

BLANKETS, Army, Rubber and Poncho.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Guelph Oiled Clothing Co., Ltd., The, Guelph, Ont.
Tower Canadian, Ltd., Toronto, Ont.

BLANKETS Cotton.

Canadian Cottons, Ltd., Montreal, Que.
Dominion Textile Co., Ltd., Montreal, Que.

BLANKETS, Horse.

Ackerman, B. F., Son, & Co., Peterborough, Ont.
Adams Bros., Harness Mfg. Co., Ltd., Toronto.
Borbridge, S. & H., Ottawa, Ont.
Brook Woolen Co., of Simcoe, Ltd., Simcoe, Ont.
Burlington Windsor Blanket Co., Ltd., Windsor, Ont.
Darch, J., & Sons, London, Ont.
Gananoque Harness Works, Ltd., Gananoque, Ont.
Glen Woolen Mills, Ltd., Glen Williams, Ont.
Gourock Ropework Export Co., Ltd., Montreal.
Great West Saddlery Co., Ltd., The, Winnipeg.
Heney Carriage & Harness Co., Ltd., Montreal.
Jolley, Jas., & Sons, Ltd., Hamilton, Ont.
Lamontagne, Ltd., Montreal, Que.
Magog Woolen Mills, Ltd., Sherbrooke, Que.
Reiner Bros., & Co., Ltd., Wellesley, Ont.
Rudd, Geo. A., & Co., Ltd., Toronto, Ont.
Sabiston, R. A., Co., Ltd., Toronto, Ont.
Slingsby Mfg. Co., Ltd., The, Brantford, Ont.
Smart-Woods, Ltd., Ottawa, Ont.
Soper, Robert, Hamilton, Ont.
Trees, Samuel & Co., Ltd., Toronto, Ont.
Turner, Beeton & Co., Ltd., Victoria, B.C.
Turner, J. J., & Sons, Peterborough, Ont.
Walshaw, J., & Son, Bolton, Ont.
Watchorn & Co., Ltd., Merrickville, Ont.

BLANKETS Horse (Rubber).

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.

BLANKETS, Printers', Lithographers' and Foundry.

Bates & Innes, Carleton Place, Ont.
Booth Felt Co., Ltd., The, Gananoque, Ont.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.

BLANKETS Saddle.

Burlington Windsor Blanket Co., Ltd., Windsor, Ont.

BLANKETS, Waterproof.

Tower Canadian, Ltd., Toronto, Ont.

BLASTING SUPPLIES.

Canadian Explosives Ltd., Montreal, Que.

BLEACHING POWDER, a mixture of chloride of lime and hypochlorite of lime, used in bleaching calicoes, and in paper making.

BLEACHING POWDER.

Canadian Alkali Co., Ltd., The, Windsor, Ont.
Canadian Salt Co., Ltd., Windsor, Ont.

BLENDE, zinc sulphide. **(See ZINC.)**

BLINDS Window (Roller). (See also Shades Window.)

Daly & Morin, Montreal, Que.
Hayhoe, H. E., & Co., Toronto, Ont.
Martel, Stewart, Western, Ltd., The, Winnipeg, Man.
Soper, The Fred G., Co., Toronto, Ont.
Western King Mfg. Co., Ltd., Winnipeg, Man.

BLINDS, Window (Wood). (See Shutters.)

BLOCKS, Building, Hollow.

Alberta Concrete Brick Co., Ltd., Lethbridge, Alta.
Bechtels, Ltd., Waterloo, Ont.
Bedell, H. W., Picton, Ont.
Canfield, F. O., St. Mary's, Ont.
Cement Products Co., Quebec, Que.
Cement Products, Ltd., Toronto, Ont.
Concrete Products, Ltd., Calgary, Alta.
Dominion Concrete Co., Ltd., Kemptville, Ont.
Medicine Hat Concrete Products Co., Ltd., Medicine Hat, Alta.
National Builders' Supply and Enamel Concrete Brick Co., Ltd., Montreal, Que.
Perfection Concrete Co., Ltd., Winnipeg, Man.
Raymond Cement Products Co., Ltd., Montreal.
Reinforced Brickwork Co., Ltd., The, Winnipeg, Man.

BLOCKS, Building Vitrified Clay.

Alberta Clay Products Co., Ltd., Medicine Hat, Alta.
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Redcliff Brick & Coal Co., Ltd., Redcliff, Alta.
Standard Clay Products, Ltd., St. John's, Que.

BLOCKS, Butchers'.

Harrison, John, & Sons Co., Ltd., Owen Sound, Ont.

BLOCKS, Cement Kiln and Coke Oven.

Clayburn Co., Ltd., The, Vancouver, B.C.

BLOCKS, Gypsum, Fireproofing.

Alabastine Co., Paris, Ltd., The, Paris, Ont.

BLOCKS, Hoisting and Differential Pulley. (See also Chain Block.)

Canadian Warren Axe & Tool Co., Ltd., St. Catharines, Ont.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Morris, The Herbert, Crane & Hoist Co., Ltd., Toronto, Ont.

BLOCKS, Last (Rough Turned).

Boston Last Company, Richmond, Que.
St. Johns Last Block Co., St. John's, Que.
Thompson, The W. R., Co., Teeswater, Ont.

BLOCKS, Paving, Asphalt.

Carritte-Paterson Mfg. Co., Ltd., St. John, N.B.
Ontario Asphalt Paving Block Co., Ltd., Windsor, Ont.

BLOCKS, Paving, Cedar.

Harrison, John, & Sons Co., Ltd., Owen Sound, Ont.

BLOCKS, Paving, Creosoted.

Canada Creosoting Co., Ltd., Toronto, Ont.
Dominion Creosoting Co., Ltd., Vancouver, B.C.
·Kirby, The T. Sidney, Co., Ltd., Ottawa, Ont.

BLOCKS, Paving, Granite.

Argenteuil Granite Co., Ltd., Montreal, Que.
Brodie, James, & Son, Iberville, Que.
Laurentian Granite Co., Ltd., The, Montreal.
Norton, S. B., Beebe Junction, Que.
Standstead Granite Quarries Co., Ltd., Beebe, Que.

BLOCKS, Pillow.

Canadian Bond Hanger & Coupling Co., Ltd., Alexandria, Ont.
Dodge Mfg. Co., Ltd., Toronto, Ont.
Elmira Machinery & Transmission Co., Ltd., Elmira, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jeffrey Mfg. Co., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Long, The E., Mfg. Co., Ltd., Orillia, Ont.
Matheson, J. & Co., Ltd., New Glasgow, N.S.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

BLOOD.—Blood of animals is used in dyeing, sugar-refining, etc. It is also a source of albumen and other substances.

BLOOMS, bars of malleable iron produced by blast-furnaces from the ore, or from pig-iron. **(See IRON AND STEEL.)**

BLOUSES. (See CLOTHING.)

BLOUSES AND SHIRTWAISTS.

Allen Mfg. Co., Ltd., Toronto, Ont.
American Silk Waist Mfg. Co., Ltd., Montreal.
Bell-Field Mfg. Co., Ltd., Toronto, Ont.
Bolsby Mfg. Co., Ltd., Toronto, Ont.
Boulter, The H. C. Co., Ltd., Toronto, Ont.
Canadian Converts Co., Ltd., Montreal, Que.
Canadian Undershirt Co., Ltd., Toronto, Ont.
Colonial Whitewear Co., Ltd., Guelph, Ont.
Crescent Mfg. Co., Ltd., Montreal, Que.
Cummings, D. H., Montreal, Que.
D'Allair, Rettie, Ltd., Montreal, Que.
Dalton Mfg. Co., Ltd., The, Toronto,, Ont.
Daniel, F. C., & Co., Toronto, Ont.
Diamond Whitewear Co., Ltd., The, Three Rivers, Que.
Doherty Mfg. Co., Ltd., The, Toronto, Ont.
Dupuis Freres, Ltd., Montreal, Que.
Eagle Skirt & Cloak Mfg. Co., Montreal, Que.
Eagle Whitewear Co., Ltd., St. Hyacinthe, Que.
Eaton, The T. Co., Ltd., Toronto, Ont.
Eclipse Whitewear Co., Ltd., Toronto, Ont.
Emery Manfg. Co., The, Guelph, Ont.
Fairbairn, R. D. Co., Ltd., Toronto, Ont.
Fashion Waist and Whitewear Co., Toronto.
Fashion Dress and Waist Co., Ltd., Montreal.
Feick Mfg. Co., The, Berlin, Ont.
Gale Manfg. Co., The, Toronto, Ont.
Hampton Mfg. Co., Ltd., Montreal, Que.
Helena Costume Co., Ltd., London, Ont.
Holladay, M. A., Co., Ltd., Toronto, Ont.
Ideal Womens Wear, Ltd., Toronto, Ont.
"Imperial, The," Montreal, Que.
Keens Mfg. Co., Ltd., Toronto, Ont.
Kussner Bros., Montreal, Que.
Ladies Novelty Mfg. Co., Ltd., The, Toronto.
Ladies' Wear, Ltd., Toronto, Ont.
Martin & Smith Co., Ltd., Toronto, Ont.
Maxwell & Co., Ltd., Toronto, Ont.
McMullen, Henry, & Company, Montreal, Que.
Metropolitan Shirtwaist Co., St. John, N.B.
Meyer Manfg. Co., Toronto, Ont.
Murray-Kay-Ltd., Toronto, Ont.
O'Donnell W., & Co., Montreal, Que.
Pageau Manfg. Co., Ottawa, Ont.
Princess Garment Co., Toronto, Ont.
Princess Manfg. Co., Ltd., Toronto, Ont.
Quebec Whitewear Manfg. Co., Quebec, Que.
Queen Skirt Co., Montreal, Que.
Queen Dress & Waist Co., Ltd., Montreal.
Reilly Mfg. Co., Ltd., Toronto, Ont.
Roe, F. G., Ltd., Montreal, Que.
Star Whitewear Mfg., Co., The, Berlin, Ont.
Stobart Sons & Co., Ltd., Winnipeg, Man.
Telford Bros., Garment Co., Rock Island, Que.
Thompson Mfg. Co., Ltd., Toronto, Ont.

BLOWERS, Blacksmiths'.

Canadian Buffalo Forge Co., Ltd., Montreal.
Jardine, A. B., & Co., Hespeler, Ont.
London Foundry Co., Ltd., The, London, Ont.
Sheldon's, Ltd., Galt, Ont.
Thompson Mfg. Co., Ltd., Grand Bay, N.B.

BLOWERS, Electric and Hydraulic, for Organs.

Canadian Pipe Organ Co., Ltd., St. Hyacinthe, Que.
Fisher Electric & Mfg. Co., Ltd., Toronto, Ont.
Jardine, A. B., & Co., Hespeler, Ont.

BLOWERS (Pneumatic), Chaff, Straw and Silo Filler.

Bell, B., & Son, Co., Ltd., St. George, Ont.
Bateman-Wilkinson Co., Ltd., Toronto, Ont.
Macdonald Thresher Co., Ltd., The, Stratford, Ont.
Moody, The Matthew, & Sons, Co., Terrebonne, Que.
Smith Stacker & Feeder Co., Ltd., Hamilton.

BLOWERS, Pressure.

Canadian Buffalo Forge Co., Ltd., Montreal.
Canadian Sirocco Co., Ltd., Windsor, Ont.
London Foundry Co., Ltd., The, London, Ont.
Sheldon's, Ltd., Galt, Ont.
Sherbrooke Machinery Co., Ltd., Sherbrooke, Q.
Thompson Mfg. Co., Ltd., Grand Bay, N.B.

BLOWERS, Turbo.

Canadian Crocker-Wheeler Co., Ltd., The, St. Catharines, Ont.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.

BLUBBER, the thick coating of fat which covers the bodies of whales, seals, and other polar animals, and yields a valuable oil. **(See WHALES.)**

BLUE. (See ULTRAMINE, COBALT, INDIGO, PRUSSIAN BLUE and ALIZARINE.)

BLUE, Laundry.

Alpha Chemical Co., Ltd., The, Berlin, Ont.
British America Paint Co., The, Victoria, B.C.

Dalley, The F. F., Co., of Hamilton, Ltd., Hamilton, Ont.
Pugsley, Dingman & Co., Ltd., Toronto, Ont.
Sultana, Ltd., Montreal, Que.
Tellier, Rothwell & Co., Montreal, Que.

BLUESTONE, Sulphate of Copper, or Blue Vitriol, which occurs in veins of copper and iron pyrites and is manufactured from copper sulphide. It is used by dyers and calico-printers, in electro-plating, &c.

BLUESTONE.

Consolidated Mining & Smelting Co., of Canada, Ltd., Trail, B.C.

BOARDS, Bake.

Schultz Bros., Co., Ltd., The, Brantford, Ont.
Stratford Mfg. Co., Ltd., Stratford, Ont.
Taylor-Scott & Co., Ltd., Palmerston, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

BOARDS, Bread.

Keenan Woodenware Mfg. Co., Ltd., Owen Sound, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

BOARDS, Bulletin.

Meyercord Co., Ltd., Tthe, St. Catharines, Ont.
Syme Signs, Ltd., Winnipeg, Man.

BOARDS, Ironing.

Keenan Woodenware Mfg. Co., Ltd., Owen Sound, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Stratford Mfg. Co., Stratford, Ont.
Taylor, Scott & Co., Ltd., Palmerston, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

BOAT BUILDERS.

Ackland Robert, Co., Winnipeg, Man.
Bower Bros., Shelburne, N.S. (Small fishing boats of about 25 tons, also dories and yachts.)
Canadian Canoe Co., Ltd., The, Peterborough.
Cox, G. A., Shelburne, N.S. (Vessels.)
Crowell, Wm. B., Port La Tour, N.S. (Boats, motor boats, yachts.)
Dean, Walter, Toronto, Ont.
Ditchburn, H., Boat Mfg. Co., Ltd., Gravenhurst, Ont.
English, The Wm., Canoe Co., Peterborough.
Ernest, J. & Sons, Mahone Bay. N.S. (Vessels from 90 to 100 tons.)
Etherington, John, Shelburne, N.S. (Boats, dories, canoes, yachts.)
Gidley Boat Co., Ltd., Penetanguishene, Ont.
Hepson, John, Shelburne, N.S. (Buoys and ships.)
Lakefield Canoe Bldg. and Mfg. Co., Ltd., Lakefield, Ont.
McAlpine, Kenneth, Shelburne, N.S. (Dories, boats, motor boats, life boats and yachts.)
McKay, W. C. & Sons, Shelburne, N.S. (Vessels, schooners and yachts.)
Morrison, J. C., Shelburne, N.S. (boats and dories.)
Peterborough Canoe Co., Ltd., Peterborough.
Vancouver Shipyard Ltd., Vancouver, B.C.
Viper Co., Ltd., ictou, N.S.
Williams, John, Shelburne, N.S. (Boats and dories.)

BOBBINET, or Bobbin-net, machine-made net.

BOBBINS, Wood.

Canada Spool & Bobbin Co., Ltd., Walkerton.
Lachute Shuttle Co., Ltd., Lachute Mills, Que.
Thompson & Co., Sherbrooke, Que.

BOHEA, the commonest black tea, so named from a range of hills in Southern China.

BOILERS, Cornish.

Berg Machinery Mfg. Co., Ltd., Toronto, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Hall Engineering Works, The, Montreal, Que.
Hamilton, Wm. Co., Ltd., Peterborough, Ont.
International Engineering Works, Ltd., Montreal, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.

BOILERS, Farmers' Feed.

Belanger, A., Montmagny, Que.
Berg Machinery Mfg. Co., Ltd., Toronto, Ont.
Erie Iron Works, Ltd., St. Thomas, Ont.
James & Reid, Perth, Ont.
Smith Foundry Co., Ltd., The, Fredericton, N.B.
Steel Trough & Machine Co., Ltd., The, Tweed, Ont.
Sussex Mfg. Co., Ltd., Sussex, N.B.

BOILERS, Locomotive.

Berg Machinery Mfg. Co., Ltd., The, Toronto.
Bertrand, La Cie, F. X., Manufacturiere, Limitee, St. Hyacinthe, Que.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Fleming, James, St. John, N.B.
General Car & Machinery Works, Montmagny, Que.
Goldie & McCulloch Co., Ltd., The, Galt, Ont.
Hall Engineering Works, The, Montreal, Que.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Inglis, The John, Co., Ltd., Toronto, Ont.
International Engineering Works Ltd., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Leonard, E., & Sons, London, Ont.
Marsh & Henthorn, Ltd., Belleville. Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.
New Burrell-Johnson Iron Co., Ltd., The, Yarmouth, N.S.
Polson Iron Works, Ltd., Toronto.
Powers, P. J., Co., Ltd., Ottawa, Ont.
Vulcan Iron Works, Ltd., Winnipeg, Man.
Waterous Engine Works Co., Ltd., Brantford, Ont.
White, W. C., Boiler Works, Montreal, Que.
Whitelaw, Robt., Woodstock, Ont.

BOILERS, Marine.

Babcox & Wilcox, Ltd., Montreal, Que.
Berg Machinery Mfg. Co., Ltd., The, Toronto.
British Columbia Marine Railways Co., Ltd., Victoria, B.C.
Canada Steam Pump & Machine Co., Ltd., Toronto, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Collingwood Shipbuilding Co., Ltd., Collingwood, Ont.
Doty Marine Engine & Boiler Co., Ltd., Goderich, Ont.
Evans, Nathaniel, Ltd., Dartmouth, N.S.
Farand & Delorme, Ltd., Montreal, Que.
Fleming James, St. John, N.B.
Georgian Bay Engineering Works, Midland, Ont.
Goldie & McCulloch Co., Ltd., The, Galt, Ont.
Hall Engineering Works, The, Montreal, Que.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Hunter Bridge & Boiler Co., Ltd., Kincardine, Ont.
Inglis, The John, Co., Ltd., Toronto, Ont.
International Engineering Works, Ltd., Montreal, Que.
International Marine Signal Co., Ltd., Ottawa.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Leonard E., & Sons, London, Ont.
Marine Iron Works, Victoria, B.C.
Maritime Foundry and Machine Works, Ltd., Chatham, N.B.
Marsh & Henthorn, Ltd., Belleville ,Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.
McKay, Alex., Montreal, Que.
Mercier, La Cie, de Machinerie, Levis, Que.
New Burrell-Johnson Iron Co., Ltd., The, Yarmouth, N.S.
Pictou Foundry & Machine Co., The, Pictou, N.S.
Polson Iron Works, Ltd., Toronto.
Powers, P. J., Co., Ltd., Ottawa, Ont.
Ross & Howard Iron Works Co., Ltd., Vancouver, B.C.
Selby & Youlden, Ltd., Kingston, Ont.
Sorel Iron Works, Sorel, Que.

Stewart, Bruce & Co., Ltd., Charlottetown, P.E.I.
Sydney Foundry and Machine Works, Ltd., Sydney, N.S.
Union Foundry & Machine Works, St. John, N.B.
Vulcan Iron Works, Ltd., Winnipeg, Man.
Waterous Engine Works Co., Ltd., Brantford, Ont.
Webber, A. A. & Son, Dartmouth, N.S.
Western Dry Dock and Shipbuilding Co., Ltd., Port Arthur, Ont.
White, R. C., Montreal, Que.
White, W. C., Boiler Works, Montreal, Que.
Whitelaw, Robert, Woodstock, Ont.
Williams, A. R., Machinery Co., Ltd., Toronto.

BOILERS, Portable.

Babcock & Wilcox, Ltd., Montreal, Que.
Bell, The Robert Engine and Thresher Co., Ltd., Seaforth, Ont.
Berg Machinery Mfg. Co., Ltd., The, Toronto.
Bertrand, La Cie., F. X., Manufacturiere, Limitee, St. Hyacinthe, Que.
Canada Iron Corporation Ltd. Montreal.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Hamilton Boiler Works Co., Ltd., Hamilton, Ont.
International Engineering Works, Ltd., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Leonard, E., & Sons, London, Ont.
Lethbridge Ironworks Co., Ltd., Lethbridge, Alta.
Marsh & Henthorn, Ltd., Belleville, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal.
McKay, Alexander, Montreal, Que.
Napanee Iron Works, Napanee, Ont.
New Burrell-Johnson Iron Co., Ltd., The, Yarmouth, N.S.
Park Bros., Chatham, Ont.
Powers, P. J., Co., Ltd., Ottawa, Ont.
Stevenson Boiler & Engine Works, Petrolia, Ont.
Victoriaville Foundry Co., Victoriaville, Que.
Vulcan Iron Works, Ltd., Winnipeg, Man.
Waterous Engine Works Co., Ltd., Brantford, Ont.
White, The George, & Sons, Co., Ltd., London, Ont.
White, R. C., Montreal, Que.
White, W. C., Boiler Works, Montreal, Que.
Whitelaw, Robert, Woodstock, Ont.
Williams, A. R., Machinery Co., Ltd., Toronto.
Windsor Boiler Works, Windsor, Ont.
Winnett, R., & Son, London, Ont.

BOILERS, Range Copper.

Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Davidson, The Thos., Mfg. Co., Ltd., Winnipeg, Man.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
McClary Mfg. Co., London, Ont.
Sparrow, Geo., & Co., Toronto, Ont.

BOILERS, Range, Galvanized.

Davidson, The Thos., Mfg. Co., Ltd., Montreal.
Steel & Radiation, Ltd., Toronto, Ont.
Toronto Hardware Mfg. Co., The, Toronto.

BOILERS, Return Tubular.

Berg Machinery Mfg. Co., Ltd., The, Toronto.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Fleming, James, St. John, N.B.
Goldie & McCulloch Co., Ltd., The, Galt, Ont.
Hall Engineering Works, Montreal, Que.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Inglis, The John, Co., Ltd., Toronto, Ont.
International Engineering Works, Ltd., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Leonard, E., & Sons, London, Ont.
Marsh & Henthorn, Ltd., Belleville, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.
New Burrell-Johnson Iron Co., Ltd., The, Yarmouth, N.S.
Powers, P. J., Co., Ltd., Ottawa, Ont.
Vulcan Iron Works, Ltd., Winnipeg, Man.
Waterous Engine Works Co., Ltd., Brantford, Ont.
White, R. C., Montreal, Que.
White, W. C., Boiler Works, Montreal, Que.
Whitelaw, Robert, Woodstock, Ont.
Windsor, Boiler Works, Windsor, Ont.

BOILERS, Stationary, Horizontal and Vertical.

Babcock & Wilcox, Ltd., Montreal Que.
Bell The Robt. Engine & Thresher Co., Seaforth, Ont.
Berg Machinery Mfg. Co., Ltd., Toronto, Ont.
Bertrand, La Cie., F. ., Manufacturiere, Limitee, St. Hyacinthe, Que.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Collingwood Shipbuilding Co., Ltd., Collingwood, Ont.
Doty Marine Engine & Boiler Co., Ltd., Goderich, Ont.
Evans, N., Ltd., Dartmouth, N.S.
Farand & Delorme, Ltd., Montreal, Que.
Fleming, James, S.t John, N.B.
General Car & Machinery Works, Montmagny, Que.
Goldie & McCulloch Co., Ltd., The, Galt, Ont.
Gosselin, J. A., La Compagnie, Drummondville, Que.
Hall Engineering Works, The, Montreal, Que.
Hamilton Boiler Works Co., Ltd., Hamilton, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Hunter Bridge & Boiler Co., Ltd., Kincardine, Ont.
International Engineering Works, Ltd., Montreal, Que.
Inglis, The John, Co., Ltd., Toronto, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Leonard, E., & Sons, London, Ont.
Lethbridge Iron Works Co., Ltd., Lethbridge, Alta.
Marine Iron Works, iVctoria, B.C.
Marsh & Henthorn, Ltd., Belleville, Ont.
Matheson, L., & Co., Ltd., New Glasgow, N.S.
Marine Iron Works, Victoria, B.C.
Mercier, La Co., de Machinerie, Levis, Que.
McDougall, The John, Caleronian Iron Works Co., Ltd., Montreal, Que.
McKay, Alex., Montreal, Que.
Napanee Iron Works, Napanee, Ont.
New Burrell-Johnston Iron Co., Ltd., Yarmouth, N.S.
Owen Sound Iron Works Co., Ltd., Owen Sound, Ont.
Park Brothers, Chatham, Ont.
Peterson Bros., Iron Works, Winnipeg, Man.
Plessisville Foundry Co., Ltd., The, Plessisville, Que.
Polson Iron Works, Ltd., Toronto, Ont.
Powers, P. J., Co., Ltd., Ottawa, Ont.
Ross & Howard Iron Works, Co., Ltd., Vancouver, B.C.
St. John Iron Works, Ltd., St. John, N.B.
Selby & Youlden, Ltd., Kingston, Ont.
Sorel Iron Works, Ltd., Sorel, Que.
Stevenson Boiler & Engine Works, Petrolia, Ont.
Sydney Foundry & Machine Works, Ltd., Sydney, N.S.
Sudbury Construction & Machinery Co., Ltd., Sudbury, Ont.
Vancouver Engineering Works, Ltd., Vancouver, B.C.
Victoria Machinery Depot Co., Ltd., Victoria, B.C.
Victoriaville Foundry Co., Victoriaville, Que.
Vulcan Iron Works, Ltd., Winnipeg, Man.
Waterous Engine Works Co., Ltd., Brantford, Ont.
Weir, J. & R., Ltd., Montreal, Que.
White, R. C., Montreal, Que.
White, W. C., Boiler Works, Montreal, Que.
Whitelaw, Robert, Woodstock, Ont.
Williams, A. R., Machinery Co., Ltd., Toronto.
Windsor Boiler Works, Windsor, Ont.
Winnett, R., & Son, London, Ont.

BOILERS, Steam and Hot Water Heating.

American Radiator Co., of Canada, Ltd., Toronto, Ont.
Babcock & Wilcox, Ltd., Montreal, Que.
Berg Machinery Mfg. Co., Ltd., The, Toronto.

Bigley, The R., Mfg. Co., Ltd., Toronto, Ont.
Butterworth Foundry, Ltd., Ottawa, Ont.
Clare Bros. & Co., Ltd., Preston, Ont.
Dominion Radiator Co., Ltd., Toronto, Ont.
Douglas & Co., Dartmouth, N.S.
Gies, Philip, Berlin, Ont.
Gurney Foundry Co., Ltd., Toronto, Ont.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont
International Engineering Works, Ltd., Montreal, Que.
Leonard, E., & Sons, London, Ont.
Longard Brothers, Halifax, N.S.
Pease Foundry Co., Ltd., Toronto Ont.
Pease-Waldon Co., Ltd., Winnipeg Man.
Steel & Radiation, Ltd., Toronto, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
Toronto Furnace & Crematory Co., Ltd., The Toronto, Ont.
Vulcan Iron Works, Ltd., Winnipeg, Man.
Warden, King, Ltd., Montreal, Que.
White, W. C., Boiler Works, Montreal, Que.
Whitelaw, Robert, Woodstock, Ont.
Windsor Boiler Works, Windsor, Ont.

BOILERS, Water Tube.

Babcock & Wilcox, Ltd., Montreal, Que.
Berg Machinery Mfg. Go., Ltd., The, Toronto
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Goldie & McCulloch Co., Ltd, The, Galt, Ont
Hall Engineering Works, The, Montreal, Que.
Inglis, The John, Co., Ltd., Toronto, Ont.
International Engineering Works, Ltd., Montreal, Que.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.
Polson Iron Works, Ltd., Toronto, Ont.

BOLE, a clayey earth, consisting of silicia, alumina, red oxide of iron, and water. Armenian bole is most common in trade, and is used to color tooth-powders and adulterate cocoa, &c., and as a veterinary medicine.

BOLSTERS, Wagon and Sleigh.

Ackland, D., & Son, Ltd., Winnipeg, Man.
Heard, John & Co., St. Thomas, Ont.

BOLT CUTTERS.

Canada Machinery Corporation, Ltd., Galt, Ont.

BOLSTERS.

McLennan Foundry & Machine Works, Ltd. Campbellton, N.B.
Waterous Engine Works Co., Ltd., Brantford Ont.

BOLTS, Anchor, Bridge & Special.

Canadian Tube & Iron Co., Ltd., Montreal, Que
Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
Miller Bros. & Sons, Ltd., Montreal, Que.
Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Steel Co., of Canada, Ltd., Montreal, Que.
Structural Steel Co., Ltd., Montreal, Que.

BOLTS, Barrel.

Taylor-Forbes Co., Ltd., Guelph, Ont.

BOLTS, Boiler, Patch, Planer, Stud.

Canadian Tube & Iron Co., Ltd., Montreal, Que
Morrow, John, Screw & Nut Co., Ltd., Ingersoll, Ont.
Northern Bolt & Screw Co., Ltd., Owen Sound. Ont.
Starr Mfg. Co., Ltd., Dartmouth, N.S.

BOLTS, Button Head, Brass, Bronze & Chuck Bolts.

Morrow, John, Screw & Nut Co., Ltd., Ingersoll, Ont.

BOLTS, Canthook and Peavy.

Canadian Warren Axe & Tool Co., Ltd. St Catharines, Ont.
Steel Co., of Canada, Ltd., Montreal, Que., and Toronto, Ont.

BOLTS, Door.

Canadian Yale & Towne, Ltd., St. Catharines Ont.

BOLTS, Extension.

Belleville Hardware & Lock Mfg. Co., Ltd. Belleville, Ont.
Canadian Tube & Iron Co., Ltd., Montreal, Que.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.

BOLTS, Flange.

Canadian Winkley Co., Ltd., Windsor, Ont.

BOLTS, Forged, Carriage, Machine, Track, Plow, Skein and Bolt Ends.

Calgary Iron Works, Ltd., The, Calgary, Alta.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Tube & Iron Co., Ltd., Montreal, Que.
Dominion Bolt & Screw Co., Ltd., Toronto, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Lake Superior Corporation, Sault Ste. Marie, Ont.
Lewis, W. & Sons, St. John, N.B.
Montreal Hardware Mfg. Co., Ltd., The, Montreal, Que.
Northern Bolt & Screw Co., Ltd., Owen Sound, Ont.
Ross & Howard Iron Works Co., Ltd., Vancouver, B.C.
Smith Foundry Co., Ltd., The, Fredericton, N.B.
Starr Mfg. Co., Ltd., Dartmouth, N.S.
Steel Co., of Canada, Ltd., Montreal, Que., and Toronto, Ont.
Vulcan Iron Works, Ltd., Winnipeg, Man.

BONES.—These are a not unimportant article of trade. They are chiefly used as a manure, as they contain phosphate of lime and other salts. Bone-ash is formed into cupels (vessels used in assaying) and in pottery, and phosphorus is made from it. Bone black is used in sugar-refining and in ironworks.

BONES, Cattle.

Harris Abattoir Co., Ltd., The, Toronto, Ont.
Harris, W., & Co., Toronto, Ont.
Marquis, F., Canac, Quebec, Que.
Swift Canadian Co., Ltd., Winnipeg, Man.

BOOKBINDERS.

Barnes & Co., Ltd., St. oJhn, N.B.
Blackhall & Co., Ltd., Toronto, Ont.
Borrie, H. J., Montreal, Que.
Brown Bros., Ltd., Toronto, Ont.
Bryant Press, Ltd., Toronto, Ont.
Bulman Bros., Ltd., Winnipeg, Man.
Buntin, Gillies & Co., Ltd., Hamilton, Ont.
Buntin-Reid Co., Toronto, Ont.
Business Systems Ltd., Toronto, Ont.
Carswell Co., Ltd., The, Toronto, Ont.
Clark & Stuart Co., Ltd., Vancouver, B.C.
Colonist Printing & Publishing Co., Ltd., Victoria, B.C.
Copeland-Chatterson Co., Ltd., Toronto, Ont.
Copp, Clark Co., Ltd., Toronto, Ont.
Cornell, C. R. Ltd., Montreal, Que.
Dawson, Chas. F., Ltd., Montreal, Que.
Dery, I. P. & Sons, Quebec, Que.
Douglas Co., Ltd., The, Edmonton, Alta.
Esdale Press, Ltd., The, Toronto, Ont.
Federated Press, Ltd., The, Montreal, Que.
Fleming, Atwell, Printing Co., Toronto, Ont.
Fortier, Joseph, Montreal, Que.
Gareau-Sauriol Co., The, Montreal, Que.
Gazette Printing Co., Ltd., Montreal, Que.
Harcourt, The E. H. Co., Ltd., Toronto, Ont.
Hart, S. R. & Co., Toronto, Ont.
Hunter Rose Co., Ltd., Toronto, Ont.
Industrial & Technical Press, Ltd., The, Toronto, Ont.

Industrial & Educational Press, Ltd., The, Montreal, Que.
Jackson Press, The, Kingston, Ont.
Johnston, W. S. & Co., Toronto, Ont.
Lawson & Wilson, Ltd., Toronto, Ont.
Le Soleil, Quebec, Que.
Lovell, John, & Son, Ltd., Montreal, Que.
Lovell, The R. J., Co., Ltd., Toronto, Ont.
Mackinlay, A. & W., Ltd., Halifax, N.S.
McAlpine Publishing Co., Ltd., Halifax, N.S.
McGowan, The S. J., Mfg. Co., Ltd., St. John, N.B.
McLean, R. G., Ltd., Toronto, Ont.
Methodist Book and Publishing House, Toronto, Ont.
Miln Bingham Printing Co., Toronto, Ont.
Modern Printing Co., Montreal, Que.
Moore, T. J., & Co., Ltd., Quebec, Que.
Morrison, The J. L., Co., Toronto, Ont.
Mortimer & Co., Ltd., Ottawa, Ont.
Morton Phillips & Co., Montreal, Que.
Murray Printing Co., Ltd., Toronto, Ont.
Paquin, S. A., Montreal, Que.
Patrie Publishing Co., Ltd., La, Montreal.
Plow, B., & Co., Ltd., Montreal, Que.
Reid Press Ltd., The, Hamilton, Ont.
Richardson Systems, Ltd., The, Winnipeg, Man.
Southam Press, Ltd., Toronto, Ont.
Spectator Printing Co., Ltd., Hamilton, Ont.
Stovel Company, Winnipeg, Man.
Taylor, T. W., Co., Ltd., Winnipeg, Man.
Thomas, F. S., & Co., Toronto, Ont.
Thomson Stationery Co., Ltd., The, Vancouver, B.C.
Warwick Bros. & Rutter, Ltd., Toronto, Ont.
Willson Stationery Co., Ltd., The, Winnipeg, Man.

BOOKBINDERS' SUPPLIES.

Buntin, Gillies & Co., Ltd., Hamilton, Ont.
Brown Bros., Ltd., Toronto, Ont.
Johnston, H. B., & Co., Toronto, Ont.
Taylor, T. W., Co., Ltd., Winnipeg, Man.
Wickett & Craig, Ltd., Toronto, Ont.

BOOKCASES.

Berlin Furniture Co., Ltd., Berlin, Ont.
Beverley Wood Specialty Co., Toronto, Ont.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Canadian Office & School Furniture Co., Ltd., The, Preston, Ont.
Gibbard Furniture Co., Ltd., Napanee, Ont.
Globe Furniture Co., Ltd., The, Waterloo, Ont.
Globe-Wernicke Co., Ltd., Stratford, Ont.
Kreiner, J., & Co., Berlin, Ont.
Krug Bros., Co., Ltd., Chesley, Ont.
Library Bureau of Canada, Ltd., Ottawa, Ont.
Malcolm, The Andrew, Furniture Co., Ltd., Kincardine, Ont.
Markdale Furniture Co., Ltd., Markdale, Ont.
McLagan, The George, Furniture Co., Ltd., Stratford, Ont.
Meaford Mfg. Co., Ltd., Meaford, Ont.
Newbigging Cabinet Co., Ltd., Hamilton, Ont.
Ottawa Stair Works, Ottawa, Ont.
Spiesz Furniture, Ltd., Hanover, Ont.

BOOKCASES, Sectional.

Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Globe-Wernicke Co., Ltd., Stratford, Ont.
Hibner Furniture Co., Ltd., Berlin, Ont.
Knechtel Furniture Co., Ltd., Hanover, Ont.
Library Bureau of Canada, Ltd., Ottawa, Ont.
Lindsay Library & Office Fitting Co., Ltd., Lindsay, Ont.
McLagan, The George, Furniture Co., Ltd., Stratford, Ont.
Office Specialty Mfg. Co., Ltd., Toronto, Ont.

BOOKS, Account and Blank.

Allen, T. C., & Co., Halifax, N.S.
Blackhall & Co., Toronto, Ont.
Borrie, H. J., Montreal, Que.
Brown Bros., Ltd., Toronto, Ont.
Buntin, Gillies & Co., Ltd., Hamilton, Ont.
Colonist Printing & Publishing Co., Ltd., Victoria, B.C.
Copeland-Chatterson Co., Ltd., Toronto, Ont.
Copp, Clark Co., Ltd., The, Toronto, Ont.
Davis & Henderson, Ltd., Toronto, Ont.
Dawson, Chas. F., Ltd., Montreal, Que.
Dawson, W. V., & Co., Montreal, Que.
Dominion Register Co., Ltd., Toronto, Ont.
Douglas Co., Ltd., The, Edmonton, Alta.
Duncan Robert & Co., Hamilton, Ont.
Fortier, Joseph, Montreal, Que.
Gage, W. J. & Co., Ltd., Toronto, Ont.
Grand & Toy, Ltd., Toronto, Ont.
Griffin & Richmond Co., Ltd., The, Hamilton, Ont.
Harcourt, The E. H., Co., Ltd., Toronto, Ont.
Hart, S. R. & Co., Toronto, Ont.
Hunter Rose Co., Ltd., Toronto, Ont.
Johnston, W. S., & Co., Toronto, Ont.
Librarie Beauchemin, Ltd., Montreal, Que.
Lovell, John & Son, Ltd., Montreal, Que.
Lovell, The R. J. Co., Ltd., Montreal, Que.
Mackinlay, A. & W., Ltd., Halifax, N.S.
McGowan, The S. J., Mfg. Co., Ltd., St. John, N.B.
Modern Printing Co., Montreal, Que.
Moore Print Shop, Ltd., The, Toronto, Ont.
Mortimer & Co., Ltd., Ottawa, Ont.
Morton, Phillips & Co., Montreal, Que.
Reason, H. T., & Co., London, Ont.
Richardson Systems, Ltd., The, Winnipeg, Man.
Thomson Stationery Co., Ltd., Vancouver, B.C.
Warwick Bros. & Rutter, Ltd., Toronto, Ont.

BOOKS, Counter Check, and Sale.

Appleford Counter Check Book Co., Ltd., The, Hamilton, Ont.
Burt, F. N. Co., Ltd., Toronto, Ont.
Business Systems, Ltd., Toronto, Ont.
Canadian Sales Check Book, Ltd., Toronto, Ont.
Dominion Register Co., Ltd., Toronto, Ont.
McGowan, The S. J., Mfg. Co., Ltd., St. John, N.B.
Reason, H. T., & Co., London, Ont.

BOOKS, Guide.

International Railway Publishing Co., Ltd., Montreal, Que.

BOOKS, Letter Copying.

Brown Bros., Ltd., Toronto, Ont.
Buntin, Gillies & Co., Ltd., Hamilton, Ont.
Davis & Henderson, Ltd., Toronto, Ont.
Gage, W. J., & Co., Ltd., Toronto, Ont.
Warwick Bros., & Rutter, Ltd., Toronto, Ont.

BOOTS AND SHOES.—According to the last census returns there were 180 establishments in Canada making boots and shoes employing 17,227 workers, with an output valued at $33,987,248 in the year 1910. The importation of boots and shoes for the year ending 31st March, 1914, amounted to $4,830,478.

BOOTS AND SHOES, Canvas. (See also Shoes, Tennis.)

Dufresne & Locke, Ltd., Montreal, Que.

BOOTS AND SHOES, Felt and Felt-Lined.

Aird & Son, Reg., Montreal, Que.
Berlin Felt Boot Co., Ltd., The, Berlin, Ont.
Canada Felting Co., The, St. Jacobs, Ont.
Dufresne & Locke, Ltd., Montreal, Que.
Elmira Felt Co., Ltd., Elmira, Ont.
Goulet, O., Quebec, Que.
Great West Felt Co., Ltd., The, Elmira, Ont.
Hamburg Felt Boot Co., Ltd., The, New Hamburg, Ont.
Hartt Boot & Shoe Co., Ltd., The, Fredericton, N.B.
Kimmel Felt Co., Ltd., Berlin, Ont.
Kimmel & Reed, Milverton, Ont.

BOOTS AND SHOES, Leather.

Acton Shoe Co., Incorporated, The, Acton Vale, Que.
Ahrens, Chas. A., Ltd., Berlin, Ont.
Aird, Jas., & Co., Montreal, Que.
Aird & Son, Registered, Montreal, Que.
Ames-Holden, McCready, Ltd., Montreal, Que.
Amherst Boot and Shoe Co., Ltd., Amherst, N.S.
Aylmer Shoe Co., Ltd., The, Aylmer, Ont.
Bell, J. & T., Ltd., Montreal, Que.
Bergeron, T., & Co., Reg., Montreal, Que.
Berlin Shoe Co., Berlin, Ont.

Blouin, J. B., Ltd., Levis, Que.
Bonin, Antoine, Montreal, Que.
Brandon Shoe Co., Ltd., The, Brantford, Ont.
Carey Shoe Co., Chatham, Ont.
Charbonneau, F. X., & Co., Montreal, Que.
Cook-Fitzgerald Co., Ltd., The, London, Ont.
Corbeil, Ltd., Montreal, Que.
Cote, La Cie, J. A. & M., St. Hyacinthe, Que.
Crosby, H. H. Co., Ltd., Hebron, N.S.
Crown Shoe and Leather Co., Ltd., Montreal.
Dack, R. & Sons, Ltd., Toronto, Ont.
Daoust, Lalonde & Co., Ltd., Montreal, Que.
Dayfoot, C. B. & Co., Georgetown, Ont.
Downing, W. G., Ltd., Brandon, Man.
Drolet, J. B., & Co., Quebec, Que.
Duchaine, Ludger, Quebec, Que.
Duchaine & Perkins, Quebec, Que.
Duchesse Shoe Co., Reg., La, Montreal, Que.
Dufresne & Locke, Ltd., Montreal, Que.
Duhamel & Frere, Sorel, Que.
Dunford Elk Shoes, Ltd., Stratford, Ont.
Dupont & Frere, Montreal, Que.
Durkee, A. A., Co., Ltd., Truro, N.S.
Eagle Shoe Co., Montreal, Que.
Edmonton Leather Shoe Co., Ltd., Edmonton, Alta.
Eagle Shoe Co., Montreal, Que.
Farmer Shoe Co., The, Acton, Que.
Gagnon & Lachapelle, Montreal, Qne.
Gale Brothers, Quebec, Que.
Galt Shoe Mfg. Co., Ltd., Galt, Ont.
Gauthier, The Louis, Co., Ltd., Quebec, Que.
Getty & Scott, Ltd., Galt, Ont.
Hamilton, W. B., Shoe Co., Ltd., Toronto, Ont.
Happy Foot Shoe, Montreal, Que.
Hartt, The, Boot & Shoe Co., Ltd., Fredericton, N.B.
Hewetson, J. W. Co., Ltd., Toronto, Ont.
Humberstone Shoe Co., Humberstone, Ont.
Humphrey, J. M. & Co., St. John, N.B.
Independent Shoe Co., Montreal, Que.
Inrig, Donald, Toronto, Ont.
Jackson & Savage, Ltd., Montreal, Que.
Jobin, Elie, Ltd., Quebec, Que.
Johnson, R. B., Ltd., Vancouver, B.C.
Kingsbury Footwear Co., Ltd., Montreal, Que.
Lachance & Tanquay, Quebec, Que.
Lacroix, A. B., Montreal, Que.
Lake, The G. M., Co., Ltd., Bridgetown, N.S.
Larochelle, J. H. & Fils, Quebec, Que.
Leckie, The J. Co., Ltd., Vancouver, B.C.
Leclair & Chalifoux, Montreal, Que.
Lennox, John & Co., Hamilton, Ont.
Linton, James & Co., Iincorporated, Montreal.
Macfarlane Shoe Co., Ltd., The, Montreal, Que.
Marsh, Wm. A., Co., Ltd., Quebec, Que.
McDermott Shoe Co., The, Montreal, Que.
McKeen, C. E. & Co., Quebec, Que.
McKeown, A., Victoria, B.C.
McPherson Co., Ltd., The, Hamilton, Ont.
Minister, Myles Shoe Co., Ltd., Toronto, Ont.
Muir, The Jas. Co., Montreal, Que.
Murray Shoe Co., Ltd., The, London, Ont.
Oberholtzezr, G. V., Co., Ltd., Berlin, Ont.
O. B. Shoe Co., Ltd., Drummondville, Que.
Parisienne Shoe Co. (Reg'd), Ltd., Montreal.
Phaneuf, Loiselle & Cie, Upton, Que.
Regal Shoe Co., Toronto, Ont.
Regina Shoe Co., Ltd., Montreal, Que.
Reliance Shoe Co., Ltd., Toronto, Ont.
Relindo Shoe Co., Ltd., Toronto, Ont.
Rena Footwear Co., Ltd., Montreal, Que.
Richer, J. & Co., Montreal, Que.
Rideau Shoe Co., Ltd., Montreal, Que.
Ritchie, The John Co., Ltd., Quebec, Que.
Rochette, Marcel, Quebec, Que.
Routier, Luc, Quebec, Que.
Rowen & Ogg, Ltd., Guelph, Ont.
St. Henri Shoe Co., Montreal, Que.
Sisman, The T. Shoe Co., Ltd., Aurora, Ont.
Slater, Geo. A., Ltd., Montreal, Que.
Slater Shoe Co., Ltd., The, Montreal, Que.
Smardon Shoe Co., Montreal, Que.
Smart-Woods, Ltd., Ottawa, Ont.
Solid Leather Shoe Co., Ltd., The, Preston, Ont.
Standard Mfg. Co., Ltd., The, Sackville, N.B.
Star Shoe Co., Montreal, Que.
Sterling, Bros., Ltd., The, London, Ont.
Taylor, The Robt., Co., Ltd., Halifax, N.S.
Taylor, Wm., Ltd., Parry Sound, Ont.
Tebutt Shoe Leather Co., Ltd., The, Three Rivers, Que.
Tetrault Shoe Mfg. Co., Montreal, Que.
Thivierge, Eugene, Quebec, Que.
Tourigny & Marois, Quebec, Que.
Underhill's Ltd., Aurora, Ont.
Valentine & Martin, Waterloo, Ont.
Walker, Parker Co., Ltd., The, Toronto, Ont.
Wayland Shoe, Ltd., Montreal, Que.
Western Shoe Co., Ltd., The, Berlin, Ont.
Western Shoe Co., Ltd., The, Campbellford, Ont.
Williams Shoe Co., Ltd., The, Brampton, Ont.
Williams & Son, Milton, Ont.
Wright, E. T., & Co., Incorporated, St. Thomas, Ont.
Wry, A. E., Ltd., Sackville, N.B.

BOOTS AND SHOES, Riverdriving.

Boyer, J. W., & Co., Victoria Corner, N.B.
Gendrom Penetang Shoe Mfg. Co., The, Penetang, Ont.
Johnson, R. B., Ltd., Vancouver, B.C.
Lake, The G. M., Co., Ltd., Bridgetown, N.S.
McKenzie, Crowe & Co., Ltd., Bridgetown, N.S.

BOOTS AND SHOES, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Columbus Rubber Co., of Montreal, Ltd., Montreal, Que.
Gutta Percha & Rubber, Ltd., Toronto, Ont.
Kaufman Rubber Co., Ltd., Berlin, Ont.
Miner Rubber Co., Ltd., Granby, Que.
Smart-Woods, Ltd., Ottawa, Ont.

BORAX, Biborate of Soda, obtained chiefly from California, especially from the marsh in Saline Valley, and Chile. In India it is called tincal. Borax is also made from boracic or boric acid, which is found in Tuscany in the pools formed at the mouth of fumaroles. Borax and boracic acid are indispensable in many industries, in glazing pottery, fusing metals, &c.

BORAX.

Alpha Chemical Co., Ltd., The, Berlin, Ont.
Forbes & Nadeau, Montreal, Que.
Lariviere & Frere, Montreal, Que.
Lawrason, S. F., & Co., London, Ont.
Sultana Ltd., Montreal, Que.

BORT. (See **DIAMOND.**)

BOTANY BAY RESIN, a resin obtained from a species of Xanthorrhea. (See **ACROIDES.**)

BOTTLE BRUSHES.

Aluminum & Crown Stopper Co., Toronto, Ont.

BOTTLE OPENERS.

Aluminum & Crown Stopper Co., Toronto, Ont.

BOTTLERS' SUPPLIES.

Aluminum & Crown Stopper Co., Toronto, Ont.
Bush, W. J., & Co. (Canada), Ltd., Montreal.
Ewing, S. H., & Sons, Montreal, Que.
Freyseng Cork Co., Ltd., The, Montreal, Que., and Toronto, Ont.
Golden Gate Mfg. Co., Ltd., Montreal, Que.
Hutchinson & Peterson, Toronto, Ont.
Wilson & Cousins, Toronto, Ont.

BOTTLES.—The great manufacturing countries are Belgium and Germany. Large quantities are also exported from Great Britain. Bottles are now made in the United States and Great Britain of paper, varnished inside to resist the action of acids, alcohols, &c.

BOTTLES.

Atlas Glass Works, Ltd., Montreal, Que.
Beaver Flint Glass Co., of Toronto, Ltd., Toronto, Ont
Dominion Glass Co., Ltd., Montreal, Que., Wallaceburg, Ont., and Toronto, Ont.

BOTTLES, Thermos.

Thermos Bottle Co., Ltd., Toronto, Ont.

BOTTLES, Water, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Walpole Rubber Co., Ltd., Montreal, Que.

BOTTLING FLAVORS.

Aluminum & Crown Stopper Co., Toronto, Ont.
Rose & Laflamme, Ltd., Montreal, Que.

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BOWLS, Water, Metal.

Beatty Bros., Ltd., Fergus, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Tisdale Iron Stable Fittings Co., Ltd., Toronto.

BOWLS, Slop.

Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.

BOWLS AND PANS, Fibre.

Eddy, The E. B., Co., Ltd., Hull, Que

BOWS, Carriage.

Ackland, D. & Son, Ltd., Winnipeg, Man.
Canada Wheel Works, Ltd., Merritton, Ont.
Heard, John & Co., St. Thomas, Ont.
Hore, F. W., & Son, Ltd., Hamilton, Ont.
Victoria Wheel Works, Galt, Ont.
Windsor Turned Goods Co., Ltd., Windsor, Ont.

BOWSTRING HEMP, the fibre of Sanseviera Zeylanica, a plant of the order Liliaceæ. It is used in the East Indies for bowstrings. The fibre of S. Guineensis, which grows abundantly on the west coast of Africa, also goes by this name.

BOXBOARD.

Brompton Pulp and Paper Co., East Angus, Que.
Eddy, The E. B., Co., Ltd., Hull, Que.
McLeod Pulp Co., Ltd., Liverpool, N.S.
National Paper Co., Ltd., Valleyfield, Que.
Ritchie & Ramsay, Ltd., Toronto, Ont.
Sable Lumber Co., Wilkins Siding, N.S.
Western Paper Mills, Ltd., Vancouver, B.C.
Westminster Paper Mill, Ltd., New Westminster, B.C.

BOXES, Butter.

Alberta Box Co., Ltd., Calgary, Alta.
Barchard & Co., Ltd., Toronto, Ont.
Beatty Bros., Ltd., Fergus, Ont.
Brunette Saw Mill Co., Ltd., New Westminster, B.C.
Consumers Box Lumber Co., Ltd., Toronto, Ont.
Cushing Bros., Co., Ltd., Calgary, Alta.
Czerwinski Box Co., Ltd., The, Winnipeg, Man.
Disraeli Box Co., Inc., Disraeli, Que.
Esplin, G. & J., Montreal, Que.
First Brook Bros., Toronto, Ont.
Fort Francis Sash & Door Co., Fort Francis, Ont.
Kilgour Mfg. Co., Hamilton, Ont.
Martin Freres & Cie., Ltd., Montreal, Que.
Mickle, Dyment Co., Ltd., The, Barrie, Ont.
Pacific Box Co., Ltd., Vancouver, B.C.
Paquet & Godbout, St. Hyacinthe, Que.
Parry Sound Lumber Co., Ltd., The, Toronto.
Rutherford, The, William & Sons Co., Ltd., Montreal, Que.
Spanish River Lumber Co., Ltd., Massey, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

BOXES, Cable, Junction. (See also Connectors, Cable).

Devoe Electric Switch Co., Montreal, Que.
Standard Underground Cable Co., of Canada, Ltd., Hamilton, Ont.

BOXES, Cheese.

Alberta Box Co., Ltd., Calgary, Alta.
Beach, The M. F., Co., Ltd., Winchester, Ont.
Carkner, D. & Co., Kenmore, Ont.

BOXES, Cigar and Tobacco.

Beck, Adam, London, Ont.
Esplin, G. & J., Montreal, Que.
Hebert, E. Napoleon, Montreal, Que.
Meyer-Thomas Co., Ltd., The, Montreal, Que.
Winnipeg Paper Box Co., Winnipeg, Man.

BOXES, Cash (Tin).

Aubry, A., & Fils, Montreals, Que.
Macdonald Mfg. Co., Ltd., Toronto, Ont
Sheet Metal Products Co., of Canada, Ltd., Toronto, Ont.

BOXES, Fibre.

Adams Cellboard Co., Toronto, Ont.
Bird, F. W., & Son, Hamilton, Ont.
Canada Paper Box Co., Ltd., Montreal, Que.
Martin Corrugated Paper & Box Co., Ltd. Toronto, Ont.
Standard Paper Box Co., Ltd., Montreal, Que.
Stronglite Box Co., Ltd., The, Ottawa, Ont.

BOXES, Folding (Wooden).

Keenan Woodenware Mfg. Co., Ltd., Owen Sound, Ont.

BOXES FISH.

Kavanagh & Son, Halifax, N.S.

BOXES, Fruit and Berry.

Barchard & Co., Ltd., Toronto, Ont.
Brunette Saw Mill Co., Ltd., New Westminster, B.C.
Canada Wood Specialty Co., Ltd., Orillia, Ont.
Consumers Box Lumber Co., Ltd., Toronto, Ont.
Czerwinski Box Co., Ltd., Winnipeg, Man.
Dalton, J. W., Ltd., Grimsby, Ont.
Erie Basket Co., Ltd., Leamington, Ont.
Esplin, G. & J., Montreal, Que.
Glover, W. T. Mfg. Co., Ltd., Burlington, Ont.
Hantsport Fruit Basket Co., Hantsport, N.S.
Holmes & Arpin, Montreal, Que.
Kilgour Mfg. Co., Hamilton, Ont.
Meyer-Thomas Co., Ltd., The, Montreal, Que.
Oakville Basket Co., Oakville, Ont.
Ontario Box Co., Ltd., Hamilton, Ont.
Reid & Piott, Beamsville, Ont.

BOXES, Journal.

Canada Iron Corpn., Ltd., Montreal, Que.
Crossen Car Co., Ltd., Cobourg, Ont.
Fleming, James, St. John, N.B.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Holden Co., Ltd., The, Montreal, Que.
Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
Miller Bros., & Sons, Ltd., Montreal, Que.
Mowry & Sons, Gravenhurst, Ont.
Oxford Foundry & Machine Co., Ltd., Oxford, N.S.
Plessisville Foundry Co., Ltd., The, Plessisville, Que.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.

BOXES, Lunch (Tin).

Wright, E. T., & Co., Hamilton, Ont.

BOXES, Lunch (Fibre).

Thomas Bros., Ltd., St. Thomas, Ont.

BOXES, Metal Bound.

Dominion Box & Package Co., Ltd., Montreal.

BOXES, Packing, Wooden and Shooks.

Abel-Fortin, J. P., & Co., Montreal, Que.
Aird, Jas., & Co., Montreal, Que.
Aitchison, D., & Co., Hamilton, Ont.
Alberta Box Co., Ltd., Calgary, Alta.
Anglin, S., & Co., Kingston, Ont.
Baldwin, W. G., Baldwin's Mills, Que.
Barchard & Co., Ltd., Toronto, Ont.
Beck, The C., Manuf. Co., Ltd., Penetanguishene, Ont.
British Columbia Box Co., Ltd., The, Vancouver, B.C.

British Columbia Canning Co., Ltd., Victoria, B.C.
British Columbia Mfg. Co., Ltd., New Westminster, B.C.
British Columbia Mills, Timber, & Trading Co., Vancouver, B.C.
Brunette Saw Mil Co., Ltd., New Westminster, B.C.
Bryan Mfg. Co., Ltd., Collingwood, Ont.
Carew, John, Lumber Co., Ltd., Lindsay, Ont.
Chappell Bros. & Co., Ltd., Sydney, N.S.
Clark, W. H., & Co., Edmonton, Alta.
Commercial Trunk Co., Ltd., London, Alta.
Consumers Box Lumber Co., Ltd., Toronto.
Cowan, O. D., Estate of, Gananoque, Ont.
Cushing Bros., Co., Ltd., Calgary, Alta.
Czerwinski Box Co., Ltd., The, Winnipeg, Man.
Dansereau, J. H., Three Rivers, Que.
Disraeli Box Co., Inc., Disraeli, Que.
Dyment-Baker Lumber Co., London, Ont.
Edmonton Casket, Box, & Mfg. Co., Ltd., Edmonton, Alta.
Esplin, G. & J., Montreal, Que.
Firstbrook Bros., Ltd., Toronto, Ont.
Fort Frances Sash & Door Co., Fort Frances, Ont.
Georgian Bay Shook Mills, Ltd., Midland, Ont.
Gignac, J. H., Ltd., Quebec, Que.
Gravel, The A., Lumber Co., Ltd., Etchemin Bridge, Que.
Graves, Bigwood, & Co., Toronto, Ont.
Grant, John J., New Glasgow, N.S.
Haley & Son, St. Stephen, N.B.
Hantsport Fruit Basket Co., Hantsport, N.S.
Hinde & Dauch Paper Co., of Canada, Ltd., Toronto, Ont.
Holmes & Arpin, Montreal, Que.
Holton Lumber Co., Ltd., Belleville, Ont.
Kerr, J. & J., Co., Ltd., Petrolia, Ont.
Kilgour Mfg. Co., Hamilton, Ont.
Kribs W. A. Hespeler Ont.
Loggie The W. S., Co., Ltd., Chatham, N.B.
Martin, Freres & Cie., Ltd., Montreal, Que.
McBrine, The L., Co., Ltd., Berlin, Ont.
McLaren Lumber Co., Ltd., Brockville, Ont.
Meyer-Thomas Co., Ltd., The, Montreal, Que.
Mickle, Dyment Co., Ltd., The, Barrie, Ont.
Moils, Ltd., Halifax, N.S.
Murray & Gregory, Ltd., St. John, N.B.
Nesbitt, E. T., Quebec, Que.
Ontario Box Co., Ltd., Hamilton, Ont.
Pacific Box Co., Ltd., Vancouver, B.C.
Paquet & Godbout, St. Hyacinthe, Que.
Parry Sound Lumber Co., Ltd., The, Toronto.
Pembroke Shook Mills, Ltd., Pembroke, Ont.
Rat Portage Lumber Co., Ltd., Kenora, Ont.
Rathbun Co., The, Deseronto, Ont.
St. Maurice Lumber Co., Three Rivers, Que.
Snowball, The J. B. Co., Ltd., Chatham, N.B.
Schultz Bros., Co., Ltd., The, Brantford, Ont.
Spanish River Lumber Co., Ltd., Massey, Ont.
Standard Box Co., Lennoxville, Que.
Sulis, S. L., Digby, N.S.
Turner Lumber Pulp Wood Co., Quebec, Que.
Villeneuve & Cie., St. Jerome, Que.
Warner & Co., St. John, N.B.
Wattsburg Lumber Co., Ltd., The, Wattsburg, B.C.
White, Chas. T. & Son, Ltd., Sussex, N.B.
Wilson Box Co., Ltd., St. John, N.B.
Zimmerman Bros., Tavistock, Ont.

BOXES, Paper, Corrugated.

Adams Cellboard Co., The, Toronto, Ont.
Canada Paper Box Co., Ltd., The, Montreal.
Freed Paper Box Co., The, Montreal, Que.
Hinde & Dauch Paper Co., of Canada, Ltd., Toronto, Ont.
Martin Corrugated Paper & Box Co., Ltd., Toronto, Ont.
Standard Paper Box Co., Ltd., Montreal, Que.
Stronglite Box Co., Ltd., The, Ottawa, Ont.

BOXES, Paper, Fancy and Plain.

Boehmer, A. & Co., Ltd., Berlin, Ont.
Brampton Paper Box Co., Ltd., Brampton, Ont.
British America Paint Co., The, Victoria, B.C.
Brown, D. F., Paper Box and Paper Co., Ltd., St. John, N.B.
Burt, F. N., Co., Ltd., Toronto, Ont.
Canada Carton Co., Ltd., The, London, Ont.
Canada Paper Box Co., Ltd., The, Montreal, Que.
Collett-Sproule, Ltd., Toronto, Ont.
Dominion Corset Co., Quebec, Que.
Dominion Paper Box Co., Ltd., Toronto, Ont.
Empire Paper Box Co., Ltd., The, Montreal.
Freed Paper Box Co., The, Montreal, Que.
Gigg Paper Box Co., Hamilton, Ont.
Hamilton Paper Box Co., Hamilton, Ont.
Hampel Paper Box Co., Brantford, Ont.
Hercules Boxes Ltd., The, Toronto, Ont.
Hitchings Paper Box Co., Winnipeg, Man.
Kilgour Bros., Toronto, Ont.
King Paper Box Co., Ltd., Montreal, Que.
Kingston Paper Box Co., Kingston, Ont.
Long, A. E., & Co., Ltd., Toronto, Ont.
Mace, Geo. A., & Co., Montreal, Que.
Major Mfg. Co., Ltd., The, Montreal, Que.
Miller Bros. Co., Ltd., Montreal, Que.
Moirs, Ltd., Halifax, N.S.
Mooney Biscuit & Candy Co., Ltd., Montreal.
Morency & Grenier, Quebec, Que.
National Boxes Ltd., The, Hamilton, Ont.
Ontario Paper Box Mfg. Co., Toronto, Ont.
Ottawa Paper Box Company, Ottawa, Ont.
Quebec Paper Box Co., The, Quebec, Que.
Reason, H. T., & Co., London, Ont.
Reid, Charles, & Co., Hamilton, Ont.
Robinson Paper Box Co., Hamilton, Ont.
Royal Paper Box Co., Quebec, Que.
Rudd Paper Box Co., Ltd., The, Toronto, Ont.
Somerville Paper Box Co., Ltd., Toronto, Ont.
Standard Paper Box Co,. Ltd., Montreal, Que.
Telfer Mfg. Co., Toronto, Ont.
Tolton Bros., Ltd., Guelph, Ont.
Truro Paper Box Co., Truro, N.S.
Winnipeg Paper Box Co., Winnipeg, Man.

BOXES, Paper, Folding.

Bird, F. W., & Son, Hamilton, Ont.
Brown, D. F., Paper Box & Paper Co., Ltd., St. John, N.B.
Canada Carton Co., Ltd., London, Ont.
Collett-Sproule, Ltd., Toronto, Ont.
Dominion Paper Box Co., Ltd., Toronto, Ont.
Duncan Litho Co., Ltd., Hamilton, Ont.
Freed Paper Box Co., Montreal, Que.
Gibb Paper Box Co., Ltd., Hamilton, Ont.
Hamilton Paper Box Co., Hamilton, Ont.
Hitchings Paper Box Co., Winnipeg, Man.
Howell Lithographic Co., Hamilton, Ont.
Kilgour Bros., Toronto, Ont.
King Paper Box Co., Ltd., Toronto, Ont.
Laidlaw Litho. Co., Ltd., Hamilton, Ont.
Lawson & Jones, Ltd., Toronto, Ont.
Long, A. E., Co., Ltd., Toronto, Ont.
Mace, Geo. A., & Co., Montreal, Que.
Major Mfg. Co., Ltd., The, Montreal, Que.
Morency & Grenier, Quebec, Que.
Ottawa Paper Box Co., Ottawa, Ont.
Quebec Paper Box Co., The, Quebec, Que.
Reason, H. T., & Co., London, Ont.
Reid, Charles, & Co., Hamilton, Ont.
Reid Press, Ltd., The, Hamilton, Ont.
Royal Paper Box Co., Quebec, Que.
Rudd Paper Box Co., Ltd., The, Toronto, Ont.
Sackville Paper Box Co., Ltd., Sackville, N.B.
Somerville Paper Box Co., Ltd., London, Ont.
Standard Paper Box Co., Ltd., Montreal, Que.
Telfer Mfg. Co., Toronto, Ont.
Tolton Bros., Ltd., Guelph, Ont.
Truro Paper Box Co., Truro, N.S.
Wilson, J. C., Ltd., Montreal, Que.
Winnipeg Paper Box Co., Winnipeg, Man.

BOXES, Pill, etc.

Jackson, Jos., St. Charles de Mandeville, Que.
Lyster Wood Box Turning & Enameling Co., Ltd., Lyster, Que.

BOXES, Smoke.

Corbet Foundry Co., The, Owen Sound, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Waterous Engine Works Co., Ltd., Brantford.

BOXES, Tin.

American Can Co., Montreal, Que.
Davidson, The Thos., Mfg. Co., Ltd., Montreal, Que.
Macdonald Mfg. Co., Ltd., Toronto, Ont.
National Metal Ware Co., Ltd., Hamilton, Ont.

Sheet Metal Products Co., of Canada, Ltd., Toronto, Ont.
Soren Bros., Toronto, Ont.

BOXES, Tin, Cardboard, for Jam, Butter, etc.

American Can Co., Montreal, Que.
Aubry, A., & Fils, Montreal, Que.
Macdonald Mfg. Co., Ltd., Toronto, Ont.
Sheet Metal Products Co., of Canada, Ltd., Toronto, Ont.

BOXES, Wood, Printed.

Barchard & Co., Ltd., Toronto, Ont.
Consumers Box Lumber Co., Ltd., Toronto, Ont.
Czerwinski Bros., Ltd., The, Winnipeg, Man.
Dominion Box Package Co., Ltd., Montreal, Que.
Esplin, G. & J., Montreal, Que.
First Brook Bros., Ltd., Toronto, Ont.
Fort Frances Sash & Door Co., Fort Frances, Ont.
Georgian Bay Shook Mills, Ltd., Midland, Ont.
Holmes & Arpin, Montreal, Que.
Kilgour Mfg. Co., Hamilton, Ont.
Meyer-Thomas Co., Ltd., The, Montreal, Que.
Mickle, Dyment Co., Ltd., The, Barrie, Ont.
Parry Sound Lumber Co., Ltd., Toronto, Ont.
Rutherford, The Wm. & Sons, Co., Ltd., Montreal, Que.
Spanish River Lumber Co., Ltd., Massey, Ont.

BOXWOOD, the common box, grows in Central and Southern Europe, North Africa, Western Asia, and Eastern Asia. The wood is heavy and compact and is used for wood engraving, the manufacture of wind instruments, &c. It comes chiefly from the Caucasus, Turkey in Asia, and Persia.

BRACKETS, Iron (Cast and Wrought).

Canada Iron Corpn., Ltd., Montreal, Que.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Edmunds, J. H., & Co., Toronto, Ont.
Garth Co., The , Montreal, Que.
Miller Bros. & Sons, Ltd., Montreal, Que.
Smart, The Jas., Mfg. Co., Ltd., Brockville, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
Toronto Hardware Mfg. Co., The, Toronto, Ont.

BRACKETS, Metal.

Canada Steel Goods Co., Ltd., Hamilton, Ont.
McDougall, R., Co., Ltd., Galt, Ont.
McGregor & McIntyre, Ltd., Toronto, Ont.
Metallic Roofing Co., of Canada, Ltd., Toronto.
Mitchell, The Robert, Co., Ltd., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Warden King, Ltd., Montreal, Que.

BRACKETS, Wood.

Anglin S., & Co., Kingston, Ont.
Clark, W. H., & Co., Ltd., Edmonton, Alta.
Cushing Bros., Co., Ltd., Calgary, Alta.
Lemon, Gonnason & Co., Victoria, B.C.
Rathbun Co., The, Deseronto, Ont.

BRADS, Wire.

Laidlaw Bale-Tie Co., Ltd., Hamilton, Ont.
Morrisburg Tack Mfg. Co., Ltd., Morrisburg, Ont.

BRAID, Suspender, Elastic and Non-Elastic.

Granby Elastic Web Co., Ltd., Granby, Que.

BRAIDS, Cotton and Silk for Trimming Underwear.

Royal Embroidery Works, Montreal.
Whitby Braid & Edging Co., Ltd., Woodstock, Ont.

BRAIDS, Fancy and Military.

Belding-Paul-Corticelli, Ltd., Montreal, Que.
Dominion Cord & Tassel Co., Montreal, Que.
Gillies, A. J., Mfg. Co., Toronto ,Ont.
Moulton Mfg. Co., Ltd., The, Montreal, Que.
Peters, J. Henry, Co., Toronto, Ont.
Royal Embroidery Works, Montreal.

BRAIDS, Silk.

Belding-Paul-Corticelli, Ltd., Montreal, Que.
Narrow Fabric Co., The, Toronto, Ont.
Gillies, A. J., Mfg. Co., Toronto, Ont.
Royal Embroidery Works, Montreal.

BRAKE BEAMS.

Canadian Car & Foundry Co., Ltd., Montreal.
Canadian Siegwart Beam Co., Three Rivers, Que.
National Steel Car Co., Ltd., Hamilton, Ont.

BRAKE SHOES, Car.

Canadian Brake Shoe Co., Ltd., Sherbrooke, Que.
Holden Co., Ltd., The, Montreal, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Reid & Brown, Toronto, Ont.

BRAKES, Air, Automatic and Straight for Steam Railway Service.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.

BRAN. (See FLOUR.)

BRAN. (See Feeds.

BRANDS, Burning.

Hamilton Stamp and Stencil Works, Ltd., Hamilton, Ont.
Montreal Stencil Works, Montreal, Que.
Superior Mfg. Co., Ltd., Toronto, Ont.

BRANDY.—Genuine brandy is a spirit distilled from grape juice. Its manufacture on a commercial scale began in France early in the 16th century. The best, known as Cognac from the town of that name, is made in the department of Charente, the various qualities being distinguished as fine champagne, grande and petite champagne, &c. Next come the brandies of Charente Inferieure, of the districts of Gers, Montpellier and Languedoc, and in Burgundy and Franche-Comte spirit is made from the pulp of grapes from which the wine has been pressed out. Spain also exports brandy, and, indeed, wherever wine is made, brandy is generally manufactured, though often of inferior quality. Much of the brandy now sold is made of potato spirit, beetroot, malt, prunes, &c., though it frequently bears the name of Cognac. **(See SPIRITS.)**

BRANDY.

Hamilton, J. S., & Co., Brantford, Ont.

BRASS.—By this name an alloy of copper and zinc is usually intended. In pinchbeck brass these metals are in the proportion of 4: 1; in Dutch metal 3: 1; in yellow metal 2: 1; in Muntz's metal (for sheathing ships) 3: 2. Brass is also alloyed with lead, zinc, and tin to form stopcock and other metals. **(See also BRONZE.)**

BRASS GOODS, Plumbers' and Steamfitters'.

Acorn Brass Mfg. Co., Ltd., Winnipeg, Man.
Bennett & Wright Co., Ltd., Toronto, Ont.

Canadian, W. R., & Co., Ltd., Galt, Ont.
City Brass Works, Hamilton, Ont.
Collings, Wm. & Son, Halifax, N.S.
Colwell Lead Company, Windsor, Ont.
Cuthbert, W. R., & Co., Montreal, Que.
Empire Mfg. Co., Ltd., London, Ont.
Fleck, Alexander, Ltd., Ottawa, Ont.
Galt Brass Co., Ltd., Galt, Ont.
Garth Co., The, Montreal, Que.
Good Mfg. Co., Ltd., The, Niagara Falls, Ont.
Hamilton Brass Mfg. Co., Ltd., Hamilton, Ont.
Hughes, J. W. & Son, Montreal, Que.
Imperial Mfg. Co., Welland, Ont.
Jenkins Bros., Limited, Montreal, Que.
Keating, William, Toronto Ont.
Keiths Ltd., Toronto, Ont.
Kerr Engine Co., Ltd., The, Walkerville, Ont.
McAvity, T., & Sons, Ltd., St. John, N.B.
Mechanics Supply Co., Ltd., Quebec, Que.
Miller, Ltd., London, Ont.
Mitchell, The Robt. Co., Ltd., Montreal, Que.
Monarch Brass Mfg. Co., Ltd., Toronto, Ont.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Mueller, H., Mfg., Co., Ltd., Sarnia, Ont.
National Brass Co., The, Ltd., London, Ont.
Pollock Mfg. Co., Ltd., Berlin, Ont.
Robertson, The James Co., Ltd., Montreal, Que. and Toronto, Ont.
Standard Sanitary Mfg. Co., Ltd., Toronto, Ont.
Tallman Brass & Metal Co., Hamilton, Ont.
United Brass & Lead, Ltd., Toronto, Ont.
Wallaceburg Brass & Iron Mfg. Co., Ltd., Wallaceburg, Ont.

BRASS, Pig.

Frankel Bros., Toronto, Ont.

BRASS, Sheet and Plate.

Brown's Copper and Brass Rolling Mills, New Toronto, Ont.
Garth Co., The, Montreal, Que.

BRASS WORK, Architectural.

Alberta Ornamental Iron Co., Ltd., Redcliff, Alta.
Cummings Brass, Iron & Wire Co., Ltd., Winnipeg, Man.
Dennis Wire and Iron Works Co., Ltd., London, Ont.
Estey Bros Co., Montreal.
Keiths, Ltd., Toronto, Ont.
Toronto Brass Mfg. Co., Ltd., Toronto, Ont.
Westminster Iron Works, New Westminster, B.C.

BRASS WORK, Marine and Locomotive.

Canadian Brake Shoe Co., Ltd., Sherbrooke, Que.
Corbet Foundry Co., The, Owen Sound, Ont.
McAvity, T., & Sons, Ltd., St. John, N.B.
Morrison, The James, Brass Mfg. Co., Ltd., Toronto, Ont.

BRASSES, Journal.

Canadian Brake Shoe Co., Ltd., Sherbrooke, Que.
Crossen Car Co., Ltd., Cobourg, Ont.
Cuthbert, W. R., & Co., Montreal, Que.
Garth Co., The, Montreal, Que.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Lumen Bearing Co., West Toronto, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Mitchell, The Robt., Co., Ltd., Montreal, Que.
Robertson, The James Co., Ltd., Montreal, Que.

BRASSES, Memorial.

Alexander & Cable Lithographing Co., Ltd., Toronto, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Cummings Brass, Iron & Wire Co., Ltd., Winnipeg, Man.
Estey Bros Co., Montreal.
Mitchell, The Robt., Co., Ltd., Montreal, Que.
Patterson & Heward, Toronto, Ont.
Pritchard-Andrews Co., of Ottawa, Ltd., Ottawa, Ont.
Toronto Brass Mfg. Co., Ltd., Toronto, Ont.

BRAZIL NUTS, the seeds of a tree belonging to the Lecythidaceæ. The fruit capsule is round and woody and divided into four compartments, each containing six or eight nuts. The nuts are exported from Para, Brazil, and French Guiana. They yield a burning oil.

BRAZIL WOOD, the dark-red or yellowish-brown dye-wood of the West Indies.

BRAZILIAN GRASS. (See CHIP.)

BREAD.

Bentley, George, Hamilton, Ont.
Canada Bread Co., Ltd., Toronto, Ont.
Ewing, A. M., Hamilton, Ont.
Hetherington, T., Quebec, Que.
Lynch's, Ltd., Sydney, N.S.
McKeown, J. H., Montreal, Que.
National Brick Co., of La Prairie, Ltd., Montreal, Que.
Nova Scotia Clayworks, Ltd., Halifax, N.S.
Port Credit Brick Co., Ltd., The, Toronto, Ont.
Port Haney Brick Co., Port Haney, B.C.
Redcliff Brick & Coal Co., Ltd., Redcliff, Alta.
Reinforced Brickwork Co., Ltd., The, Winnipeg, Man.
Stephens Brick Co., Ltd., Portage La Prairie, Man.
McLaughlan & Son, Co., Ltd., Owen Sound, Ont.
Wilton, Wm. Ryde, Winnipeg, Man.
Meyer, The A., Co., Ltd., St. Catharines, Ont.
Moirs, Ltd., Halifax, N.S.
Nasmith's, Ltd., Toronto, Ont.
Parnell Dean Steam Baking Co., Ltd., The, London, Ont.
Stuart Co., Incorporated, The, Montreal, Que.
Vick, Geo., & Sons, Orillia, Ont.

BREADFRUIT TREE, a native of the East Indies, but now introduced into America. It yields an edible fruit and a soft yellow wood with the appearance of mahogany. A kind of dammar is obtained from the sap, which also is a source of caoutchouc.

BREAKFAST FOODS.

Battle Creek Toasted Corn Flake Co., Ltd., London, Ont.
Canadian Postum Cereal Co., Windsor, Ont.
Chisholm Milling Co., Ltd., Toronto, Ont.
H. O. Company, The, Hamilton, Ont.
Leitch Bros., Flour Mills, Ltd., Oak Lake, Man.
Monarch Pure Food Co., Ltd., Toronto, Ont.
Robin Hood Mills, Ltd., Calgary, Alta.
White Swan Spices & Cereals, Ltd., Toronto.
Wigle, Colin, & Sons, Amherstburg, Ont.

BREWERS' SUPPLIES.

Aluminum & Crown Stopper Co., Toronto, Ont.
Bush, W. J., & Co., (Canada), Ltd., Montreal.
Ewing, S. H. & Sons, Montreal, Que.
Freyseng Cork Co., Ltd., Toronto, Ont.
Standard Paint Co., of Canada, Ltd., Montreal, Que.

BRIAR ROOT.—The briar-root of which pipes are made is the root of a large heath which grows in Corsica, Algeria, and Spain, and in small quantities in the South of France. The chief seat of the manufacture is at Saint-Claude in the Jura. The roots of the Smilax rotundifolia, a climbing plant of North America, are also used for pipes.

BRICKS, blocks of clay moulded and burned. The colors, cream to dark red, are due to the varying quantities of iron in the clay. Blue bricks are produced by controlling the supply of air during the firing. Bricks for decoration are made in particular forms, glazed, &c. (For fire-clay bricks see CLAY.)

BRICK, Boiler Tube.

Montreal Fire Brick Works Co., Ltd., The, Montreal, Que.

BRICK, Building.

Alberta Clay Products Co., Ltd., Medicine Hat, Alta.
Alsip Brick and Tile Co., Fort William, Ont.
Alsip Brick Tile and Lumber Co., Ltd., Winnipeg, Man.
Betchels, Ltd., Waterloo, Ont.
Bird's Hill Sandstone Brick Co., Ltd., The, Winnipeg, Man.
Brandon Sandstone Brick Co., Ltd., Brandon, Man.
Brick and Tile Co. of Canada, Inc., Montreal.
Citadel Brick and Paving Block Co., Ltd., The, Quebec, Que.
Clayburn Co., Ltd., The, Vancouver, B.C.
Consolidated Clay Works, Ltd., Pictou, N.S.
Crandell, E. H., Pressed Brick and Sandstone Co. Calgary, Alta.
Don Valley Brick Works, Toronto, Ont.
Dryden Timber and Power Co., Ltd., Dryden, Ont.
Eastern Townships Brick & Mfg. Co., Lennoxville, Que.
Evans Co., Ltd., The, Sudbury, Ont.
Excelsior Brick Co., Ltd., Toronto, Ont.
Frid, Geo. Co., Hamilton, Ont.
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Jamieson Lime Co., The, Renfrew, Ont.
Kelly Thomas & Sons, Winnipeg, Man.
Lee, John & Co., St. John, N.B.
Lethbridge Brick and Terra Cotta Co., Lethbridge, Alta.
Loggie, The W. S., Co., Ltd., Chatham, N.S.
Maloney, John, Toronto, Ont.
Manitoba Pressed Brick Co., Ltd., Winnipeg.
McArthur(J. D., Co., Ltd., Winnipeg, Man.
Milton Pressed Brick Co., Ltd., The, Milton, Ont.
Nova Scotia Brick & Tile Co., Ltd., New Glasgow, N.S.
St. John's Brick Co., St. John's, Que.
St. Lawrence Brick Co., Ltd., Montreal, Que.
Sidney Brick and Tile Co., Ltd., The, Winnipeg, Man.
Sidney Island Brick Co., Victoria, B.C.
Streetsville Pressed Brick Co., Ltd., The Streetsville, Ont.
Superior Brick Co., Ltd., Fort William, Ont.
Victoria Brick & Tile Co., Ltd., Victoria, B.C.

BRICK, Cement.

Alberta Concrete Brick Co., Ltd., Lethbridge, Alta.
Bedell, H. W. Picton, Ont.
Canadian Enamel Concrete Brick & Tile Co., Winnipeg, Man.
Concrete Products Ltd., Calgary, Alta.
Medicine Hat Concrete Products Co., Ltd., Medicine Hat, Alta.
National Builders' Supply & Enamel Concrete Brick Co., Ltd., Montreal, Que.
Raymond Cement Products Co., Ltd., Montreal, Que.

BRICK, Enamel, Concrete.

Crandell, E. H., Pressed Brick & Sandstone Co., Calgary, Alta.
Canadian Enamel Concrete Brick & Tile Co., Winnipeg, Man.
National Builders' Supply & Enamel Concrete Brick Co., Ltd., Montreal, Que.
Redcliff Brick & Coal Co., Ltd., Redcliff, Alta. Alta.

BRICK, Fire, Stove and Cupola.

British Columbia Pottery Co., Ltd., Victoria, B.C.
Campbell's, R., Sons, Hamilton, Ont.
Clayburn Co., Ltd., The, Vancouver, B.C.
Dominion Sewer Pipe Co., Ltd., Swansea, Ont.
Elk Fire Brick Co., of Canada, Ltd., Hamilton.
Excelsior Brick Co., Ltd., Toronto, Ont.
Hamilton Facing Mill Co., Ltd., Hamilton, Ont.
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Harbison-Walker Refractories Co., Montreal, Que.
Montreal Fire Brick Works Co., Ltd., The, Montreal, Que.
Standard Clay Products, Ltd., St. John's, Que.
Toronto Fire Brick Co., Toronto, Ont.
Vitrolite Construction Co., of Manitoba, Winnipeg, Man.

BRICK, Paving.

Citadel Brick & Paving Block Co., Ltd., Quebec.
Hamilton Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.

BRICK, Pressed.

Alsip Brick & Tile Co., Fort William, Ont.
Brandon Pressed Brick & Tile Co., of Milton, Ltd., Milton, Ont.
Canada Cement Co., Ltd., Montreal, Que.
Canadian Pressed Brick Co., Ltd. Hamilton, Ont.
Citadel Brick & Paving Block Co., Ltd., Quebec.
Clayburn Co., Ltd., The, Vancouver, B.C.
Crandell, E. H. Pressed Brick & Sandstone Co., Calgary, Alta.
Don Valley Brick Works, Toronto, Ont.
Excelsior Brick Co., Ltd., Toronto, Ont.
Hamilton Pressed Brick Co., Ltd., Hamilton, Ont.
Kelly, Thos., & Sons, Winnipeg, Man.
Manitoba Pressed Brick Co., Ltd., Winnipeg.
Milton Pressed Brick Co., Ltd., Milton, Ont.
National Brick Co., of Laprairie, Ltd., Montreal, Que.
Brick Co., Ltd., Montreal, Que.
National Builders' Supply & Enamel Concrete
Nova Scotia Clay Works, Ltd., Halifax, N.S.
Oakville Pressed Brick Co., Oakville, Ont.
Redcliff Clay Products Co., Ltd., Redcliff, Alta.
Sidney Brick & Tile Co., Ltd., Winnipeg, Man.
Superior Brick Co., Ltd., Fort William, Ont.
Sydney Pressed Brick Co., Ltd., Sydney, N.S.
Toronto Pressed Brick & Terra Cotta Works, Milton, Ont.

BRICK, Sewer.

Alsip Brick & Tile Co., Fort William, Ont.
National Brick Co., of Laprairie, Ltd., Montreal, Que.
Port Credit Brick Co., Ltd., The, Toronto, Ont.

BRICK, Silica Pressed.

Calgary Silicate Pressed Brick Co., Ltd., Calgary, Alta.
Canada Brick Co., Ltd., The, Montreal, Que.
Harbison-Walker Refractories Co., Montreal, Que.
Schultz Bros., Co., Ltd., The, Brantford, Ont.

BRIDGES, Iron and Steel, Railway and Highway.

Algoma Steel Bridge Co., Ltd., Winnipeg, Man.
Bruce Agricultural Works, The, Teeswater, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Bridge Co., Ltd., Walkerville, Ont.
Corbet Foundry Co., The, Owen Sound, Ont.
Dickson Bridge Works Co., Ltd., Campbellford, Ont.
Dominion Bridge Co., Ltd., Montreal, Que.
Eastern Canada Steel & Iron Co., Ltd., Quebec, Que.
Fleming, James, St. John, N.B.
Hamilton Bridge Works, Co., Ltd., The, Hamilton, Ont.
Hill, A. & Co., Mitchell, Ont.
Hunter Bridge & Boiler Co., Ltd., Kincardine, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.
McNeill, Wm. P., & Co., New Glasgow, N.S.
Miramichi Foundry & Machine Works, Chatham, N.B.
National Bridge of Canada, Ltd., Montreal, Que.
Phoenix Bridge & Iron Co., Ltd., The, Montreal, Que.

Robertson Iron Works, Victoria, B.C.
St. Lawrence Bridge Co., Ltd., Montreal, Que.
Sarnia Bridge Co., Ltd., Sarnia, Ont.
Saskatchewan Bridge & Iron Co., Ltd., Moose Jaw, Sask.
Standard Steel Construction Co., Ltd., Port Robinson, Ont.
Stratford Bridge and Iron Works, Co., Stratford, Ont.
Structural Steel Co., Ltd., Montreal, Que.
Sydney Foundry & Machine Works, Ltd., Sydney, N.S.
Thor Iron Works, Ltd., Toronto, Ont.

BRILL, a flat fish akin to the turbot, but inferior in flavor. It is caught off the coasts of England and the Continent.

BRIMSTONE. (See **SULPHUR.**)

BRIQUETTE, a kind of fuel composed of coal dust and pitch cemented together by steam and compressed into a brick shape by powerful rams.

BRISTLES, the bristles of the hog and wild boar are used in making brushes, and by saddlers and shoemakers. Leipzig is the great centre of the trade in bristles, a large quantity of which come from Russia. China also exports a considerable quantity of rather inferior quality.

BRISTOL BOARD.

Alabastine Co., Paris, Ltd., The, Paris, Ont.
Barber Paper & Coating Mills, Ltd., Georgetown, Ont.
Consolidated Lithographing & Mfg. Co., Ltd., Montreal, Que.
Don Valley Paper Co., Ltd., Toronto, Ont.
Eddy, The E. B., Co., Ltd., Hull, Que.
German Card Mfg. Co., Peterborough, Ont.
Ritchie & Ramsay, Ltd., Toronto, Ont.

BRITANNIA METALS, an alloy usually composed of 80 to 90 per cent. of tin, with varying quantities of antimony and copper and other metals. Tea and coffee pots, hot-water jugs, and many other utensils are made of this metal, a thin sheet of Britannia metal being impressed in a lathe on to a wooden model.

BROADCLOTH, a fine woollen fulled cloth made into men's suits. It is about 30 inches wide.

BROCADE, a figured silk in which one or more threads are inserted by a shuttle which travels only the breadth of a leaf or flower, and thus produces the design in relief. Gold, silver, or gilt thread is often used.

BROMINE, a chemical element in the form of a dark reddish heavy liquid. It is the only element besides mercury which is liquid at ordinary temperatures. It is found in combination with sodium in sea-water and in some springs, as those at Kreuznach and Kissingen in Germany. The largest output is from the salt mines of Stassfurt, twenty miles from Magdeburg. The bromide of potassium and hydrobromic acid are used in medicine, and the former as well as bromide of silver in photography.

BRONZE, an alloy of copper and tin, to which small quantities of other metals, as zinc, lead, or silver are frequently added. Five to ten parts of copper to one of tin make gun-metal, used for bearings and other parts of machinery where a hard material is necessary, and two to four parts of copper to one of tin is the composition of bell metal. Phosphor-bronze has the advantage of being more homogeneous. It consists of 7 to 8 per cent. of tin, phosphide, copper, and ¼ to 2½ per cent. of phosphorus. (See also **ALUMINIUM.**)

BRONZE LIQUIDS AND POWDERS.

Canadian Bronze Powder Works, Montreal.

BRONZE, Lumen, Manganese.

Lumen Bearing Co., West Toronto, Ont.

BRONZE, Phosphor.

Canada Metal Co., Ltd., Toronto, Ont.
Cuthbert, W. R., & Co., Montreal, Que.
Mitchell, The Robt., Co., Ltd., Montreal, Que.

BRONZE SHEETS AND PLATES.

Brown's Copper & Brass Rolling Mills, New Toronto, Ont.

BRONZE WORK, Ornamental.

Alberta Ornamental Iron Co., Ltd., Redcliff, Alberta.
Beaver Brass Mfg. Co., Ltd., The, Toronto.
British Columbia Iron Wire Fence Co., Vancouver, B.C.
Estey Bros. Co., Montreal.

BROOM, a name given to several species of Leguminosæ (sub-order Papilionaceæ.) The common broom is abundant in Europe and Northern Asia, and owes its name to the fact that it is used to make besoms. Spanish broom furnishes a fibre for making canvas, nets, and ropes, and its twigs can be used in basket work. Brooms are also made from the American broom-corn, and from Andropogon muricatum mats and window blinds are made.

BROOMS (Corn), Carpet, Factory.

Adam, John, Collingwood, Ont.
Bailey, Broom Co., The, Kingston, Ont.
Boeckh Bros. Co., Ltd., Toronto, Ont.
Briggs, E. H., Co., Ltd., Winnipeg, Man.
Burdett, Frank, Hamilton, Ont.
Canada Broom Co., Montreal, Que.
Meakins Brush Co., Ltd., Montreal, Que.
Meakins & Sons, Ltd., Hamilton, Ont.
Nelson, H. W., & Co., Ltd., Toronto, Ont.
Parker Broom Co., The, Ottawa, Ont.
Simms, T. S., & Co., Ltd. St. John, N.B.
Skedden Brush Co., Hamilton, Ont.
Stevens-Hepner Co., Ltd., Port Elgin, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.
Ulley's Brush Works, Montreal, Que.
Waterloo Broom and Brush Co., Ltd., The, Waterloo, Ont.
West, Taylor, Bickle & Co., Ltd., Norwich, Ont.
Woods, Walter & Co., Hamilton, Ont.

BROOMS, Stable.

Boeckh Bros., Co., Ltd., Toronto, Ont.
Skedden Brush Co., Hamilton, Ont.
Stevens-Hepner Co., Ltd., The, Port Elgin, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.
Ulley's Brush Works, Montreal, Que.
West, Taylor, Bickle & Co., Ltd., Norwich, Ont.

BROOMS, Toy.

Thomas Bros., Ltd., St. Thomas, Ont.

BRUSHES.—Brushes are made from bristles, horse-hair, goats' hair, badgers', camels', and sables' hair, &c. Also from vegetable fibres, as the American agave, the palm, bass or piassava fibre, esparto grass, &c.

BRUSHES.

Boeckh Bros., Co., Ltd., Toronto, Ont.
Boyd, R. E., & Co., Montreal, Que.
Briggs, E. H., Co., Ltd., Winnipeg, Man.
Burdett, Frank, Hamilton, Ont.
Canada Brush Co., St. John, N.B.
Meakins Brush Co., Ltd., The, Montreal, Que.
Meakins & Sons, Ltd., Hamilton, Ont.
Muirhead, A., Co., Ltd., Toronto, Ont.
Salyerds Mfg. Co., Ltd., Preston, Ont.
Simms, T. S., & Co., Ltd., St. John, N.B.
Skedden Brush Co., Hamilton, Ont.
Stevens-Hepner Co., Ltd., The, Port Elgin, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.
Ulley's Brush Works, Montreal, Que.

BRUSHES, Artists'.

Boeckh Bros., Co., Ltd., Toronto, Ont.
Simms, T. S., & Co., Ltd., St. John, N.B.
Thomas Bros., Ltd., St. Thomas, Ont.

BRUSHES, Carbon.

Canadian Carbon Co., Ltd., Toronto, Ont.
Canadian National Carbon Co., Ltd., Toronto.

BRUSHES, Household.

Boeckh Bros., Co., Ltd., Toronto, Ont.
Burdett, Frank, Hamilton, Ont.
Canada Brush Co., St. John, N.B.
Perfection Sanitary Brush Co., Toronto, Ont.
Simms, T. S., & Co., Ltd., St. John, N.B.
Skedden Brush Co., Hamilton, Ont.
Stevens-Hepner Co., Ltd., The, Port Elgin, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

BRUSHES, Machinery and Mill.

Meakins Brush Co., Ltd., The, Montreal, Que.
Skedden Brush Co., Hamilton, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

BRUSHES, Paint.

Boeckh Bros., Co., Ltd., Toronto, Ont.
Canada Brush Co., St John, N.B.
Meakins Brush Co., Ltd., The, Montreal, Que.
Meakins & Sons, Ltd., Hamilton, Ont.
Simms, T. S., & Co., Ltd., St. John, N.B.
Skedden Brush Co., Hamilton, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

BRUSHES, Shaving.

Gillette Safety Razor Co., of Canada, Ltd., Montreal, Que.
Simms, T. S., & Co., Ltd., St. John, N.B.
Stevens-Hepner Co., Ltd., The, Port Elgin, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

BRUSHES, Stable.

Boeckh Bros., Co., Ltd., Toronto, Ont.
Burdett, Frank, Hamilton, Ont.
Meakins & Sons, Ltd., Hamilton, Ont.
Salyerds Mfg. Co., Ltd., Preston, Ont.
Simms, T. S., & Co., Ltd., St. John, N.B.
Stevens-Hepner Co., Ltd., The, Port Elgin, Ont.
Thomas Bros, Ltd., St. Thomas, Ont.
Ulley's Brush Works, Montreal, Que.

BRUSHES, Steel Wire.

Greening, The B., Wire Co., Ltd., Hamilton, Ont.
Hamilton Facing Mill Co., Ltd., Hamilton, Ont.
Meakins Brush Co., Ltd., The, Montreal, Que.
Perfection Sanitary Brush Co., Toronto, Ont.
Simms, T. S., & Co., Ltd., St. John, N.B.
Montreal Wire & Brush Works, Montreal, Que.

BRUSHES, Toilet.

Perfection Sanitary Brush Co., Toronto, Ont.

BUCHU, or Bucku, the Hottentot name for some evergreen aromatic shrubs of the order Barosma, natives of Cape Colony. The leaves are used as medicine.

BUCKETS, Canvas.

Soper, Robert, Hamilton, Ont.

BUCKETS, Concrete, Coal, Dredge, Ore.

Beatty, M., & Sons, Ltd., Welland, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.
Marsh & Henthorn, Ltd., Belleville, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Mussen's, Ltd., Montreal, Que.
Northern Crane Works, Walkerville, Ont.
Sudbury Construction & Machinery Co., Ltd., The, Sudbury, Ont.

BUCKETS, Elevator.

Metal Shingle & Siding Co., Ltd., Preston, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

BUCKETS, Excavating.

Beatty, M., & Sons., Ltd., Welland, Ont.

BUCKETS, Sap.

Wyatt Can Works, The, Sutton, Que.

BUCKETS, Steel and Galvanized.

Davidson, The Thos., Mfg. Co., Ltd., Montreal.
Powers, P. J., Co., Ltd., Ottawa, Ont.
Sheet Metal Products Co., of Canada, Ltd., Toronto, Ont.
Small Bros., Dunham, Que.

BUCKLES.

McKinnon Dash Co., St. Catharines, Ont.
Parmenter & Bulloch Co., Ltd., The, Gananoque, Ont.

BUCKSKIN, a leather made from deer or sheepskin rendered very soft and pliant by repeated soakings in cod oil. Also called doeskin. Buff leather is made in a similar manner from South American cow and ox hides. Imitation buckskin is a strong twilled woollen cloth with the nap cut off.

BUCKWHEAT is grown in Europe and in North America. It is very nutritious and is a favorite food in United States and Canada in the form of buckwheat pancakes. It is good food for horses, cattle and poultry and is freuently used in gin distilleries. Dyer's buckwheat yields a blue dye, little inferior to indigo.

The production of buckwheat in Canada is on a decided increase. In 1910 the total crop amounted to 7,102,853 bushels as compared with 4,547,159 bushels in 1900. Buckwheat is grown principally in Ontario and Quebec.

BUFFETS.

Beach Furniture Company, The, Cornwall, Ont.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Crown Furniture Co., Preston, Ont.
Gibbard Furniture Co., Ltd., Napanee, Ont.
Hepworth Mfg. Co., Ltd., The, Hepworth, Ont.
Hespeler Furniture Co., Ltd., Hespeler, Ont.
Hibner Furniture Co., Ltd., Berlin, Ont.
Kensington Furniture Co., Goderich, Ont.
Krug Bros., Co., Ltd., Chesley, Ont.
Malcolm, The Andrew, Furniture Co., Ltd., Kincardine, Ont.
Malcolm & Souter Furniture Co., Ltd., Hamilton, Ont.
Markdale Furniture Co., Ltd., Markdale, Ont.

McLagan, The George, Furniture Co., Ltd., Stratford, Ont.
Meaford Mfg. Co., Ltd., Meaford, Ont.
North American Furniture Co., Ltd., Owen Sound, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Rogers, Chas., & Sons, Co., Ltd., Toronto, Ont.
Spiesz Furniture Ltd., The, Hanover, Ont.
Stratford Chair Co., Stratford, Ont.
Strathroy Furniture Co., Ltd., Strathroy, Ont.
Windsor Furniture Co., Ltd., Windsor, N.S.

BUGGIES. (See Carriages.) .. ..

BUGLES, glass beads in a pipe form, made in Austria and Italy for trimmings.

BUILDERS AND CONTRACTORS.

Claydon Bros., Winnipeg, Man.
Hutchison, J. H., Montreal, Que.
Lariviere, La Cie, Limitee, Roxton Falls, Que.
Lyall, Peter, & Sons, Construction Co., Ltd., Montreal, Que.
Shearer, The James, Co., Ltd., Montreal, Que.
Stewart, John, & Co., Montreal, Que.
Victor Wood Works, The, Ltd., Amherst, N.S.

BUILDERS' AND CONTRACTORS' SUPPLIES.

Hyde & Sons, Ltd., Montreal.

BUILDING PAPER.

Bird, F. W., & Son, Hamilton, Ont.
Caritte-Paterson Mfg. Co., Ltd., St. John, N.B.
Crabtree, Edwin, & Sons, Ltd., Crabtree Mills, Que.
Dominion Paper Co., Montreal, Que.
Fisher, John, & Son, Ltd., Dundas, Ont.
Ford, J., & Co., Portneuf Station, Que.
Ford, Rowland, & Son, Portneuf Station, Que.
Hamilton Tar Distilling Co., The, Hamilton, Ont.
McArthur Alex & Co., Ltd., Montreal, Que.
McComb, J. H., Ltd., Montreal, Que.
Metallic Roofing Co., of Canada, Ltd., The, Toronto, Ont.
Merrick-Anderson Co., Winnipeg, Man.
Northumberland Paper and Electric Co., Ltd., Campbellford, Ont.
Paterson Mfg. Co., Ltd., The, Toronto, Ont., and Montreal, Que.
Riordon Pulp and Paper Co., Ltd., Montreal.
St. Croix Paper Co., Ltd., The, Halifax, N.S.
Sidney Rubber Roofing Co., Sidney, B.C.
Standard Paint Co., of Canada, Ltd. ,Montreal.
Stutt, Jas., & Sons, West Flamboro, Ont.
Walker, J. R., & Co., Montreal, Que.
Western Paper Mills, Ltd., Vancouver, B.C.
Westminster Paper Mills, Ltd., New Westminster, B.C.

BUILDING PAPER, Asbestos.

Asbestos Mfg. Co., Ltd., The, Montreal, Que.

BUILDINGS, Portable, Steel.

Canadian Metal Shelter Co., Winnipeg, Man.
Pedlar People, Ltd., The, Oshawa, Ont.

BUILDINGS, Steel.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Dominion Bridge Co., Ltd., Montreal, Que.
MacKinnon, Holmes & Co., Ltd., Sherbrooke.
McGregor & McIntyre, Ltd., Toronto, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
National Bridge Co., of Canada, Ltd., Montreal, Que.
St. Lawrence Bridge Co., Ltd., Montreal, Que.
Sarnia Bridge Co., Ltd., Sarnia, Ont.
Saskatchewan Bridge & Iron Co., Ltd., Moose Jaw, Sask.
Standard Steel Construction and Foundry Co., Ltd., Port Robinson, Ont.
Structural Steel Co., Ltd., Montreal, Que.
Sydney Foundry & Machine Works, Ltd., Sydney, N.S.
Thor Iron Works, Ltd., Toronto, Ont.

BUKKUM WOOD, a name in India for sappan wood.

BULLION, gold and silver in bars and ingots.

BULLION, Gold and Copper.

Granby Consolidated Mining, Smelting & Power Co., Ltd., Grand Forks, B.C.
Wilkinson, J. E., Co., Ltd., Toronto, Ont.

BULLION, Lead.

Consolidated Mining & Smelting Co. of Canada, Ltd., The, Trail, B.C.

BULLION, Silver.

Coniagas Reduction Co., Ltd., St. Catharines, Ont.
Granby Consolidated Mining, Smelting & Power Co., Ltd., Grand Forks, B.C.
Wilkinson, J. E., Co., Ltd., Toronto, Ont.

BUMPERS, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.

BUNG, Cork and Wooden.

Canadian Cork Cutting Co., Montreal, Que.
Freyseng Cork Co., Ltd., The, Toronto, Ont., and Montreal, Que.

BUNTING, a thin woollen material of which flags are made.

BUOYS, Automatic, Acetylene Gas.

International Marine Signal Co., Ltd., Ottawa, Ont.

BUOYS, Iron and Steel.

Evans, Nathaniel, Ltd., Dartmouth, N.S.
Matheson, I., & Co., Ltd., New Glasgow, N.S.

BUOYS. (See Life Preservers.)

BURGUNDY, wines grown in the country which formed the old province of Burgundy, France. Among the choicest red wines are Chambertin, Clos-Vougeot, Volnay, Pommard, Beaune; and Chablis is a well-known white wine.

BURGUNDY PITCH, a resinous substance prepared by soaking the natural exudation of the Norway spruce in hot water, and used for chest plasters and in rheumatic complaints. It is brought chiefly from Finland, Austria, and Switzerland.

BURLAP, a coarse canvas of hemp and jute, used for bags. A finer kind is made into curtains.

BURLAP, for Hooked Rugs.

Garrett, John E., New Glasgow, N.S.

BURLAPS, Oil-coated and Double-sized.

Dominion Oil Cloth Co., Ltd., Montreal, Que.

BURLAPS, Wall, Plain and Sized.

Canadian Bag Co., Ltd., Winnipeg, Man.
Dominion Oil Cloth Co., Ltd., Montreal, Que.
Hayhoe, H. E., & Co., Toronto, Ont.
Smart-Woods, Ltd., Montreal, Que.

BURNERS, Acetylene Gas.

Economic Acetylene Burner Co., Toronto, Ont.

BURNERS, Auto Lamp.

Prest-O-Lite Co., The, Toronto, Ont.

BURNERS, Bunsen and Jewellers'.

Morrison, The James, Brass Mfg. Co., Ltd., Toronto, Ont.

BURNERS, Gas, For Stoves and Furnaces.

Doherty Mfg. Co., Ltd., The, Sarnia, Ont.

BURNERS, Lamp and Lantern.

Canadian Tungsten Lamp Co., Ltd., Hamilton, Ont.
Garth Co., The, Montreal, Que.
Schultz Mfg. Co., Ltd., The, Hamilton, Ont.
Sheet Metal Products Co., of Canada, Ltd., Toronto, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

BURNERS, Oil.

Morrison, The James Brass Mfg. Co., Ltd., Toronto, Ont.

BURNERS, Refuse.

Canadian Buffalo Forge Co., Ltd., Montreal.
Fleming, James, St. John, N.B.
MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.
Waterous Engine Works Co., Ltd., Brantford, Ont.

BURNERS, Sulphur.

Canadian Pulp Mill Machinery Co., Ltd., Montreal.

BURRS.

Jenckes Machine Co., Ltd., Sherbrooke, Que.
Parmenter & Bulloch Co., Ltd., The, Gananoque, Ont.
Robertson, P. L., Mfg. Co., Ltd., Milton, Ont.
Hamilton Bull Mfg. Co., Hamilton, Ont.

BURRSTONES, properly buhrstones. Blocks of hard silicate, from which millstones are cut. The best are quarried in the department of Seine-et-Marne, France. They are largely superseded in flour mills by iron rollers.

BUST FORMS.

Delfosse & Co., Montreal.

BUTT. (See LEATHER.)

BUTTER. (See DAIRY PRODUCTS.)

BUTTER.

Acadia Canning and Creamery Co., Ltd., Kingston Station, N.S.
Brandon Creamery and Supply Co., Ltd., Brandon, Man.
Canadian Milk Products, Ltd., Toronto, Ont.
City Dairy Co., Ltd., Toronto, Ont.
Crescent Creamery Co., Ltd., Winnipeg, Man.
Duff, John & Son, Ltd., Hamilton, Ont.
Flavelle, Ltd., Lindsay, Ont.
Gunn's, Ltd., Toronto, Ont.
Hygienic Fresh Milk Co., Ytd., Antigonish, N.S.
Laurentia Milk Co., Ltd., Toronto, Ont.
Modern Canner Co., St. Jacob's, Ont.
Montreal Dairy Co., Ltd., Montreal, Que.
Ottawa Dairy, Ltd., Ottawa, Ont.
Pure Milk Co., Ltd., The, Hamilton, Ont.
St. Thomas Packing Co., Ltd., The, St. Thomas, Ont.
Smith & Proctor, Halifax, N.S.
Stratford Dairy Co., Ltd., Stratford, Ont.
Swift Canadian Co., Ltd. Winnipeg, Man.
Whyte Packing Co., Ltd., The, Stratford, Ont.

BUTTER WORKERS.

Beatty Bros., Ltd., Fergus, Ont.
Maxwell, David & Son, St. Mary's, Ont.
National Mfg. Co., Ltd., Ottawa, Ont.
Richardson, C., & Co., St. Mary's, Ont.
Taylor, Forbes, Co., Ltd., Guelph, Ont.

BUTTERINE. (See MARGARINE.)

BUTTERNUT, a North American walnut. (**See** WALNUT.)

BUTTER TREE, several species of Bassia of the order Sapotaceæ bear seeds from which a kind of butter is made. B. latifolia is the Mahwa tree of India; its buds are eaten, and a spirit is distilled from them, and the seeds yield an oil for eating and burning.

BUTTONS, Barrel.

Moulton Mfg. Co., Ltd., The, Montreal, Que.
Peters, J. Henry, Co., Toronto, Ont.

BUTTONS, Celluloid and Emblematic.

Arlington Co. of Canada, Ltd., The, Toronto.
Dominion Button Works, The, Montreal, Que.
Forsyth, Kimmel Co., Ltd., Berlin, Ont.
Mortimore & Blackeby, Toronto, Ont.

BUTTONS, Cloth Covered.

Cooper, The H. S., Co., Toronto, Ont.
Dominion Button Works, The, Montreal, Que.
Forsyth, Kimmel Co., Ltd., Berlin, Ont.
Hoffman, C. E., & Co., Berlin, Ont.
Moulton Mfg. Co., Ltd., The, Montreal, Que.
Roschman, Richard, & Brother, Waterloo, Ont.

BUTTONS, Fancy.

Dominion Cord and Tassel Co., Montreal, Que.
Lemaitre, Paul, Montreal.

BUTTONS, Ivory, Pearl and Horn.

Berlin Button Works, Ltd., Berlin, Ont.
Canadian Pearl Button Co., Ltd., Trenton, Ont.
Dominion Button Mfrs., Ltd., Berlin, Ont.
Dominion Button Works, The, Montreal, Que.
Roschman, Richard & Brother, Waterloo, Ont.
Windsor Pearl Button Co., Ltd., The, Windsor, Ont.

BUTTONS, Metal.

Dominion Button Works, The, Montreal, Que.
Scully, William, Montreal, Que.

BUTTONS, Pant and Overall.

Berlin Button Works, Ltd., Berlin, Ont.
Dominion Button Works, The, Montreal, Que.
Farmenter & Bulloch Co., Ltd., The, Gananoque, Ont.

BUTTONS, Push.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.

BUTTS, Cast, Brass, Bronze and Iron.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Cowan & Britton, Ltd., Gananoque, Ont.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Montreal Hardware Mfg. Co., Ltd., The, Montreal, Que.
Peterborough Lock Mfg., Co., Ltd., Peterborough, Ont.

BUTYRIC ETHER, an ether distilled from butyric acid and alcohol, with the addition of sulphuric acid. It has the flavor of pineapples, and is sold as pineapple oil for the purpose of flavoring sweets and drinks, and for the preparation of perfumes.

C

CABALLINE ALOES, the coarsest kind, or the refuse of Barbados aloes.

CABINETS, China.

Beach Furniture Co., The, Cornwall, Ont.
Berlin Furniture Co., Ltd., Berlin, Ont.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Chappell Bros. & Co., Ltd., Sydney, N.S.
Chesley Furniture Co., Ltd., Chesley, Ont.
Gibbard Furniture Co., Ltd., Napanee, Ont.
Hespeler Furniture Co., Ltd., Hespeler, Ont.
Hibner Furniture Co., Ltd., Berlin, Ont.
Malcolm & Souter Furniture Co., Ltd., Hamilton, Ont.
McLagan, The Geo., Furniture Co., Ltd., Stratford, Ont.
Meaford Mfg. Co., Ltd., Meaford, Ont.
Strathroy Furniture Co., Ltd., Strathroy, Ont.

CABINETS, Fancy.

Beverley Wood Specialty Co., Ltd., Toronto.
Burton & Baldwin Mfg. Co., Ltd., Hamilton, Ont.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Chappell Bros., & Co., Ltd., Sydney, N.S.
Coulter, The J., Co., Ltd., Toronto, Ont.
Clatworthy & Son, Toronto, Ont.
Hespeler Furniture Co., Ltd., Hespeler, Ont.
Malcolm & Souter Furniture Co., Ltd., Hamilton, Ont.

McLagan, The George, Furniture Co., Ltd., Stratford, Ont.
Mundell, John C., & Co., Elora, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Randall, G. H., & Co., Montreal, Que.
Standard Cabinet Mfg. Co., Ltd., Hamilton, Ont.

CABINETS, Filing.

Canada Furniture Mfrs. Ltd., Woodstock, Ont.
Canadian Office & School Furniture Co., Ltd., Preston, Ont.
Elmira Interior Woodwork Co., Ltd., The, Elmira, Ont.
Globe-Wernicke Co., Ltd., Stratford, Ont.
Library Bureau of Canada, Ltd., Ottawa, Ont.
Lindsay Library & Office Fitting Co., Ltd., Lindsay, Ont.
Newbigging Cabinet Co., Ltd., The, Hamilton, Ont.
Office Specialty Mfg. Co., Ltd., Toronto, Ont.
Williams Mfg. Co., Ltd., The, Montreal, Que.

CABINETS, Kitchen.

Blonde Lumber and Mfg. Co., Ltd., Chatham, Ont.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Ferguson, John, & Sons, London, Ont.
Furniture, H. E., Co., Ltd., The, Milverton, Ont.
Gray-Sons-Campbell, The Wm., Ltd., Chatham, Ont.
Hamilton Ideal Mfg. Co., Ltd., Hamilton, Ont.
Hepworth Mfg. Co., Ltd., The, Hepworth, Ont.
Krug Bros., Ltd., Chesley, Ont.
Lee Mfg. Co., Ltd., Pembroke, Ont.
Markdale Furniture Co., Ltd., Markdale, Ont.
Meaford Mfg. Co., Ltd., Meaford, Ont.
Metropolitan Mfg. Co., Toronto, Ont.
National Mfg. Co., Ltd., Ottawa, Ont.
Stratford Chair Co., Stratford, Ont.
Thompson Kanuck Kitchen Kabinet Co., Ltd., Belleville, Ont.

CABINETS, Medicine.

Blonde Lumber & Mfg. Co., Ltd., Chatham, Ont.
Chesley Furniture Co., Ltd., Chesley, Ont.
Goderich Organ Co., Ltd., Goderich, Ont.
Meaford Mfg. Co., Ltd., Meaford, Ont.

CABINETS, Metallic.

Meadows, Geo. B., Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Office Specialty Mfg. Co., Ltd., Toronto, Ont.
Steel Equipment Co., Ltd., Ottawa, Ont.

CABINETS, Music and Record.

Beach Furniture Co., The, Cornwall, Ont.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Hay & Co., Ltd., Woodstock, Ont.
Hespeler Furniture Co., Ltd., Hespeler, Ont.
Malcolm & Souter Furniture Co., Ltd., Hamilton, Ont.
McLagan, The George, Furniture Co., Ltd., Stratford, Ont.
Newbigging Cabinet Co., Ltd., The, Hamilton, Ont.

CABINETS, Silverware.

Canada Jewellery Case Co., Ltd., The, Toronto.
Coulter, The J. Co., Ltd., Toronto, Ont.
Ellis, P. W., & Co., Ltd., Toronto, Ont.
Hodgson,, W. A., Montreal, Que.

CABLE, a large rope made of hemp used to tow vessels and let down the ancnor. They are made of various thicknesses, up to 18 inches. Wire rope is often used instead, and for anchor the hemp cables have been superseded by chain cables.

CABLE, Electric, Telegraph and Telephone.

Boston Insulated Wire & Cable Co., Ltd., Hamilton, Ont.
Canada Wire & Cable Co., Ltd., Toronto, Ont.
Canadian General Electric Co., Ltd., Toronto.
Dodd & Struthers, Sherbrooke, Que.
Imperial Wire & Cable Co., Ltd., Montreal.
Phillips, Eugene F., Electrical Works, Ltd., Montreal, Que.
Standard Underground Cable Co., of Canada, Ltd., Hamilton, Ont.
Steel Co. of Canada, Ltd., Montreal, Que.
Wilson, James, Merritton, Ont.

CABLE, Hemp, Manilla, etc.

Consumers' Cordage Co., Ltd., Montreal, Que.

CADE OIL, the empyreumatic oil made from Juniperus oxycedrus and other species.

CADMIUM, a white ductile metal occurring in small quantities in zinc ores. It is an ingredient of easily fusible alloys, and is used in electro-plating. The sulphide, known as cadmium yellow, is a valuable color for artists.

CAFFEINE, or theine, is the active principle present in tea, coffee, and kola nuts. It is manufactured on a large scale from refuse tea.

CAGES, Bird.

Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Wright, E. T., & Co., Hamilton, Ont.

CAGES, Mine.

Jenckes Machine Co., Ltd., Sherbrooke, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.

CAJEPUT, a tree which grows in Further India, the Moluccas, and Australia. A volatile oil is obtained from it by distillation, and is occasionally used in medicine.

CALABAR BEANS, the bean of Old Calabar, a climber allied to the scarlet runner. It is highly poisonous, but useful to oculists, as when placed on the eye-ball it contracts the iris.

CALAMANDER, a cabinet-wood of great beauty, which grows in Southern India and Ceylon. It is now rare.

CALAMBAC. A name for aloes wood.

CALAMINE, silicate of zinc, an important zinc ore. Another variety is carbonate of zinc. **(See ZINC.)**

CALAMUS, the sweet flag. The root yields an aromatic stimulant still przied in the East, and on that account the plant is cultivated in Ceylon and Burma. It is sometimes used to flavor beer, to scent toothpowder, and in the fabrication of gin and liqueurs.

CALCIUM CARBIDE.

Canada Carbide Co., Ltd., Montreal, Que.

CALCIUM CYANAMID.

American Cyanamid Co., Niagara Falls, Ont.

CALISAYA BARK. (See CINCHONA.)

CALOMEL, sub-chloride of mercury, used as medicine.

CALUMBA ROOT, the roots of a climbing plant of East Africa, yielding a tonic medicine.

CAMELINA SATWA, a plant of the order Cruciferæ. This species, is cultivated in Europe for the oil its seeds contain. The oil is used as salad oil, in soap manufacture, and in varnishes.

CAMELS' HAIR, the hair from the neck, belly, and back of the camel. The last is the best. An adult Bactrian camel yields about 10 lbs. of hair. In Persian camel's-hair cloth, the hair forms the woof and cotton the warp. In France and England the hair is used in making hats and paint-brushes. China and Russia are the chief exporting countries.

CAMERAS.

Canadian Kodak Co., Ltd., Toronto, Ont.

CAMLET, a textile made originally from camels' hair, but now from the hair of the Angora goat, and frequently of wool and thread or silk.

CAMOMILE, plants belonging to the order of Compositæ. The camomile of druggists is the Anthemis nobilis, which yields an essential oil. It is cultivated chiefly in Germany and Belgium.

CAMPEACHY WOOD. (See LOGWOOD.)

CAMPHENE, or Camphilene. An artificial camphor obtained from turpentine. The name is also given to the series of oils isomeric with camphor, such as bergamot and lemon.

CAMPHINE, spirit of turpentine obtained from Pinus australis of the Southern United States. Burning oils to which camphor has been added are sometimes sold as camphine.

CAMPHOR, a solid essential oil obtained from certain species of laurel. The wood of the tree is cut into chips, and the camphor is driven out by steam. A somewhat different camphor is obtained in Borneo and Sumatra, and is imported into China. Near Canton a third variety, called ngai, is obtained. The oil that drains from the camphor is also an article of commerce. Camphor is essential to the manufacture of smokeless powder.

CAMS.

Jenckes Machine Co., Ltd., Sherbrooke, Que.
Turner, John, & Son, Toronto, Ont.

CAMWOOD, the wood of the sub-order Cæsalpiniæ, which grows in West Africa. It yields a rich red dye. Barwood is a duller wood from the same tree.

CAN OPENERS.

Montreal Hardware Mfg. Co., Ltd., The, Montreal, Que.

CANADA BALSAM. (See BALSAMS.)

CANADA PITCH. (See PITCH.)

CANANGA OIL. (See YLANG-YLANG.)

CANARY SEED, the seed of a grass grown in Europe, Morocco, and California. It is used chiefly as a food for birds. Turkey supplies the greatest quantity, but the seeds of Spain and Portugal are the best.

CANDLEBERRY, the wax-tree, tallow-tree, or Bayberry of the United States. The berries are covered with a greenish-white wax used for candles and soap.

CANDLE-NUT. (See BANKUL OIL.)

CANDLES, these are made of tallow, stearine, stearic acid, paraffin, spermaceti oil, and wax. Stearine candles include all those made from stearine and stearic acids obtained from tallow, palm oil (Palmitic acid), and mixtures. Composite candles contain a considerable proportion of stearine obtained from coco-nut oil. Tallow stearine and paraffin candles are cast in moulds; and wax candles are made by hand, strips of wax being wrapped round the wick, and the candle rolled on a marble slab to give it a cylindrical form. **(See also PARAFFIN, SPERMACETI OIL, and OZOKERITE.)**

CANDLES.

Baillargeon, F., St. Constant, Que.
Canadian Oil Co.'s, Ltd., Toronto, Ont., and Winnipeg, Man.
Empire Refining Co., Ltd., Wallaceburg, Ont.
Lasmier, J. B., Levis, Que.
St. John's Straw Works Co., Ltd., St. John's, Que.

CANELLA ALBA, a tree of the order of Clusiaceæ, which grows in the West Indies. Its bark is the white cinnamon of commerce, used in Europe chiefly by apothecaries.

CANES. (See BAMBOO, RATTAN, TOBAGO, and MALACCA CANES, &c.)

CANNABIS. (See HEMP.)

CANNEL COAL, a hard bituminous coal used in gas-making and for fuel in open hearth fireplaces.

CANNISTERS, Tea, Coffee and Spice.

Davidson, The Thos., Mfg. Co., Ltd., Winnipeg, Man.
National Metal Ware Co., Ltd., Hamilton, Ont.
Soren Bros., Toronto, Ont.

CANOES.

Canadian Canoe Co., Ltd., The, Peteroboro, Ont.
Chestnut Canoe Co., Ltd., Fredericton, N.B.
Dean, Walter, Toronto, Ont.
Ditchburn, H., Boat Mfg. Co., Ltd., Gravenhurst, Ont.
English, The Wm., Canoe Co., Peterborough, Ont.
Gidley Boat Co., Ltd., Penatanguishene, Ont.
Lakefield Canoe Building & Mfg. Co., Ltd., Lakefield, Ont.
Peterborough Canoe Co., Ltd., Peterborough, Ont.
Ross, Henry, Indian Lorette, Que.

CANOPIES.

Soper, Robert, Hamilton, Ont.

CANOPIES, Metal.

Alberta Ornamental Iron Co., Ltd., Redcliff, Alta.

CANS, Ash and Paper, Corrugated.

Corrugated Pipe Co., Ltd., The, Stratford, Ont.

CANS, Condensed Milk, Cream, Soup, etc.

Sanitary Can Co., Ltd., Niagara Falls, Ont.

CANS, Garbage.

Corrugated Pipe Co., Ltd., The, Stratford, Ont.
Fairgrieve Metal & Stamping Co., Toronto.
Steel Trough & Machine Co., Ltd., The, Tweed, Ont.
Wright, E. T., & Co., Hamilton, Ont.

CANS, Grocers'.

American Can Co., Montreal, Que.
Macdonald Mfg. Co., Ltd., Toronto, Ont.
Sheet Metal Products Co., of Canada, Ltd., Toronto, Ont., and Winnipeg, Man.
Whittall, A. R., Montreal, Que.

CANS, Ice Cream.

Fletcher Mfg. Co., Ltd., Toronto, Ont.

CANS, Key-opening.

American Can Co., Montreal, Que.
Macdonald Mfg. Co., Ltd., Toronto, Ont.
Whittall, A. R., Montreal, Que.

CANS, Milk, Factory and Railway.

American Can Co., Montreal, Que.
Aubry, A., & Fils, Montreal, Que.
Crochett, Bros., Westville, N.S.
Davidson, The Thos., Mfg. Co., Ltd., Montreal.
McClary Mfg. Co., London, Ont.
Richardson, C., & Co., St. Mary's, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Stevely, W., & Son, London, Ont.
Steel Trough & Machine Co., Ltd., The, Tweed, Ont.

CANS, Oil, Household.

Macdonald Mfg. Co., Ltd., Toronto, Ont.
Markwell Mfg. Co., Ltd., Winnipeg, Man.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.

CANS, Oil Waste, Galvanized.

Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Ormsby, A. B., Co., Ltd., Toronto, Ont.
Reed, Geo. W., & Co., Ltd., Montreal, Que.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Wheeler & Bain, Toronto, Ont.

CANS, Paint and Varnish.

American Can Co., Montreal, Que.
Macdonald Mfg. Co., Ltd., Toronto, Ont.
Ross, J. F., 560 King St. West, Toronto, Ont.
Whittall, A. R., Montreal, Que.

CANS, Shipping, Wood-jacketed.

Fairgrieve Metal & Stamping Co., Toronto, Ont.

CANS, Special.

American Can Co., Montreal, Que.
Macdonald Mfg. Co., Ltd., Toronto, Ont
Ross, J. F., 560 King St., W., Toronto, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont., and Winnipeg, Man.
Whittall, A. R., Montreal, Que.

CANS, Tin, Fruit, Vegetable, Meat, Syrup, Baking Powder, etc.

American Can Co., Montreal, Que.
Aubry, A., & Fils, Montreal, Que.
Eastern Canning Co., The, St. George, N.B.
Grimm Mfg. Co., Ltd., The, Montreal, Que.
Macdonald Mfg. Co., Ltd., Toronto, Ont.
Ross, J. F., 560 King St. W., Toronto, Ont.
Sanitary Can Co., Ltd., Niagara Falls, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont., and Winnipeg, Man.
Wyatt Can Works, Sutton, Que.

CANTHARIDES, the blister beetles, often called Spanish flies, but these beetles, of which there are many species, are also exported from Russia, China, and Japan. Hungary supplies the greater part of the preparation.

CANTHOOKS.

Canadian Warren Axe & Tool Co., Ltd., St. Catharines, Ont.
Lachute Shuttle Co., Ltd., Lachute Mills, Que.
McFarlane, Neill Mfg. Co., Ltd., The, St. Mary's, N.B.
Pink, Thomas, Pembroke, Ont.

CANVAS, a coarse, unbleached fabric of flax and tow, of which sails are made, and cloth for pictures. The finest and strongest sailcloth is made from flax. **(See COTTON and FLAX.)**

CANVAS.

Montreal Cottons, Ltd., Valleyfield, Que.
Pike, The D., Co., Ltd., Toronto, Ont.

CANVAS, Decorators' Prepared.

Dominion Oil Cloth Co., Ltd., Montreal, Que.

CAOUTCHOUC. (See INDIA-RUBBER.)

CAPERS, the flower buds of the caper bush, preserved in salt and vinegar. The bush grows in Italy and Sicily, but the best are produced in the South of France. One or two other species of Capparis yield good capers, and the berries of several other plants are often substituted.

CAPES, Fur (Coachman's).

Bishop, J. H., Co., Sandwich, Ont.
Brereton & Steward, Toronto, Ont.

CAPES, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que

CAPES, Waterproof.

Guelph Oiled Clothing Co., Ltd., The, Guelph, Ont.
Tower Canadian, Ltd., Toronto, Ont.

CAPRI.—This island, on the south side of the Gulf of Naples, gives its name to red and white wines, which are among the best grown in Italy.

CAPS, Bottle & Jar.

Canadian Tungsten Lamp Co., Ltd., Hamilton. Ont.
Schram Automatic Sealer Co., Waterloo, Ont.
Wallaceburg Brass & Iron Mfg. Co., Ltd., Wallaceburg, Ont.

CAPS, Cloth.

Allan, A. A., & Co., Ltd., Toronto, Ont.
Big Four Cap Co., The, Toronto, Ont.
Bruce Mfg. Co. Toronto, Ont.
Canada Cap Co., Ltd., Truro, N.S.
Cooper Cap Co., The, Toronto, Ont.
Eastern Hat & Cap Co., Ltd., Truro, N.S.
Echlin Mfg. Co., The, Winnipeg, Man.
Fraser Cap Co., London, Ont.
Fried-Grills & Co., Toronto, Ont.
Goldner, A., Montreal, Que.
Kumfort Cap Mfg. Co., Montreal, Que.
London Hat & Cap Mfg. Co., Montreal, Que.
Maritime Ltd., Moncton, N.B.
Merchants Garment & Cap Co., Montreal, Que.
Palter Bros., Toronto, Ont.
Pack, John, W. & Co., Toronto, Ont.
Punchard, Chas., C., & Co., Toronto, Ont.
Redmond Co., Ltd., The, Montreal, Que.
Waldron, Drouin Co., Ltd., Montreal, Que.

CAPS, Fur.

Allan, A. A., & Co., Ltd., Toronto, Ont.
Ansley-Dineen Hat and Fur Co., Ltd., Toronto.
Berlin Glove & Gauntlet Co., Ltd., Ont.
Boulter, Waugh & Co., Ltd., Montreal, Que.
Brereton & Steward, Toronto, Ont.
Brodey, Draimin Fur Co., Toronto, Ont.
Coristine, Jas., & Co., Ltd., Montreal, Que.
Dechene & Pouin, Quebec, Que.
Fried-Grills & Co., Toronto, Ont.
Gillespie Fur Co., Ltd., Toronto Ont.
Graedinger, L., Son & Co., Montreal, Que.
Holt, Renfrew Co., Quebec, Que.
Laliberte, J. B., Quebec, Que.
Magee's D., Sons, Ltd., St. John, N.B.
Sandham & Thurston, Toronto, Ont.
Waldron, Drouin Co., Ltd., Montreal, Que.

CAPS, Knitted.

Eastern Hat & Cap Co., Ltd., Truro, N.S.
Forbes, R. Co., Ltd., Hespeler, Ont.
Royal Knitting Co., Guelph, Ont.

CAPS, Leather.

Bruce Mfg. Co., Toronto, Ont.
Punchard, Chas. C. & Co.. Toronto, Ont.

CAPS, Milk Bottle, Paper.

Brown, D. F., Paper Box & Paper Co., Ltd., St. John, N.B.
Reliance Ink Co., Ltd., Winnipeg, Man.
Walker, E. C., & Sons, Toronto, Ont.

CAPS, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que
Walpole Rubber Co., Ltd., Montreal, Que.

CAPS, Uniform.

Fraser Cap Co., London, Ont
Mortimore & Blackeby, Toronto, Ont.
Muir Cap Company, Toronto, Ont.
Scully, Wm., Montreal, Que.

CAPSICUMS, the pods of a genus of Solanaceæ, which are generally cultivated in tropical and sub-tropical countries. They are also known by their Mexican name, Chillies. Capsicum fastigiatum, and C. annuum furnish most of the pods in trade, and from the latter is chiefly made the powder known as Cayenne pepper.

CAPSTANS, Ship.

Doty Marine Engine & Boiler Co., Ltd., Goderich, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Lunenburg Foundry Co., Ltd., Lunenburg, N.S.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Polson Iron Works, Ltd., Toronto, Ont.
Selby & Youlden, Ltd., Kingston, Ont.
Windsor Foundry & Machine Co., Ltd., Windsor, N.S.

CAPSULES.

Ewing, S. H., & Sons, Montreal, Que.
Frosst, Chas., E., & Co., Montreal, Que.
Parke, Davis & Co., Walkerville, Ont.
Robin & Co., Montreal, Que.
Wampole, Henry K., & Co., Ltd., Perth, Ont.

CAPUCINES, the buds of Tropœolum majus, sold as capers.

CARAMBOLA, the fruit of an evergreen tree of the order Oxalidaceæ. It is used in the East Indies in pickles. This tree has been introduced into the West Indies.

CARAMEL, a dark brown substance prepared by heating loaf sugar over a slow fire and used for coloring beer, whiskey, vinegar, &c.

CARANNA, a resin obtained from a tree, which is a native of Porto Rico and San Domingo.

CARAPA, trees of the order of Meliaceæ, the nuts of which yield an oil used by the natives as a protection against insects, and in Europe in the manufacture of soap. The wood is called crab wood.

CARAWAY, an umbelliferous plant, cultivated in South and Central Europe, especially Germany and Holland, for its seeds. These are used as a flavoring material by confectioners, and the oil they contain is applied in perfumery and pharmacy and in the manufacture of liqueur.

CARBOLIC ACID, or Phenol, a white crystalline substance obtained from coal tar by distillation. It is used as an antiseptic, in the preparation of certain coloring matters, and in the manufacture of picric acid.

CARBON TUBES, RODS AND PLATES.

Canadian National Carbon Co., Ltd., Toronto.

CARBONATORS.

Aluminum & Crown Stopper Co., Toronto, Ont.
Fletcher Mfg. Co., Ltd., Toronto, Ont.
McLaughlin, J. J., Ltd., Toronto, Ont.

CARBONIC ACID GAS LIQUID.

Canadian Carbonate Co., Ltd., Montreal.

CARBONIZING, Textile.

Montreal Blanket Co., Montreal, Que.
Smith Mfg. Co., Ltd., Toronto, Ont.

CARBONS, Arc Lamp and Projector.

Canadian Carbon Co., Ltd., Toronto, Ont.
Canadian National Carbon Co., Ltd., Toronto.

CARBORUNDUM, a silicium carbide used as a substitute for emery and other hard powders. It does not occur in nature, but is manufactured principally in the United States with the help of electricity generated by the Falls of Niagara. It is also used in the manufacture of steel and graphite. **(See ABRASIVES.)**

CARBURETORS.

Tallman Brass & Metal Co., Hamilton, Ont.

CARDAMOMS, the capsules of several species of Zingiberaceæ. The seeds are a pungent spice, used in medicine and in confectionery. The best are the Malabar cardamoms, next to which are the cardamoms of Ceylon.

CARDBOARD, a board formed by pasting several layers of paper together. **(See also PAPIER-MACHE, MILLBOARD and PULP and PAPER.)**

CARDBOARD.

Barber Paper & Coating Mills, Ltd., Georgetown, Ont.
Consolidated Lithographing & Mfg. Co., Ltd., Montreal, Que.
McLeod Pulp Co., Ltd., Liverpool, N.S.
Price Bros. & Co., Ltd., Quebec, Que.
Ritchie & Ramsay, Ltd., Toronto, Ont.

CARDS, Jewellery.

Coulter, The J. Co., Ltd., Toronto, Ont.
Long, A. E., & Co., Ltd., Toronto, Ont.

CARDS, Playing.

Consolidated Lithographing & Mfg. Co., Ltd., Montreal, Que.
Copp, Clark Co., Ltd., The, Toronto, Ont.
Montreal Lithographing Co., Ltd., Montreal, Que.

CARDING MILLS.

McMullen, James, Barrington, N.S.

CARMINE, the red coloring matter of cochineal. The color is used in dyeing silk and wool, and being quite harmless, in confectionery. The secret of its manufacture being known in only a few factories, the price is high, and several imitations are made.

CARPETS, Axminster, Brussels, Wilton.

Brinton Carpet Co., Peterborough, Ont.
Canadian Carpet & Comforter Mfg. Co., Ltd., Toronto, Ont.
Dominion Axminster Co., Ltd., The, Toronto.
Guelph Carpet Mills Co., Ltd., The, Guelph, Ont.
Perth Carpet Co., Ltd., Perth, Ont.
Toronto Carpet Mfg. Co., Ltd., The, Toronto.

CARPETS, Carriage, Church, Lodge, Railway, Steamer, etc.

Cobourg Matting & Carpet Co., Ltd., The, Cobourg, Ont.
Guelph Carpet Mills Co., Ltd., The, Guelph, Ont.
Perth Carpet Co., Ltd., Perth, Ont.

CARPET, Cork.

Dominion Oil Cloth Co., Ltd., Montreal, Que.

CARPET SWEEPERS.

Bissell Carpet Sweeper Co., Niagara Falls, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

CARNALLITE chloride of potassium and magnesium with an admixture of bromine and other chemicals. It occurs in Persia, Galicia, and especially at the Stassfurt mines in Germany. It owes its red color and name to the presence of scales of iron oxide.

CARNAUBA WAX.—This wax covers the leaves of a Brizilian palm. It is in composition nearly the same as beeswax, and is also used in making candles.

CAROB, the algaroba or locust-tree, which grows in the countries bordering on the Mediterranean. The beans serve as a fodder for cattle, and yield on distillation a potable spirit. The residue contains gallic acid, and in conjunction with iron salts forms a black dye. The leaves are useful in tanning, and the seeds yield an excellent gum. The wood is hard and takes a good polish.

CARPETS.—The chief carpets are Kidderminster, which has no pile and shows a pattern on both sides; Brussels, in which the colored threads required to form the pattern are raised by the Jacquard apparatus, and wires are inserted to raise the thread into loops; Velvet Pile or Wilton, in which the loops are cut by a sharp edge on the wires as these are withdrawn; Tapestry, in which the pattern is printed on the threads of the warp before weaving, and the wool lies on the surface, the back being formed of other material, frequently jute; Axminster, woven of chenille, which forms a pile without being cut. Very good carpets are also made of jute alone and strong ones of hair. The term five or six frame implies that there are five or six threads one above the other, those of any shade or color being brought to the surface when they are required to form the pattern. Eastern carpets are made by knotting tufts of woollen yarn on the warp threads. They are made in Asia Minor, chiefly at Ushak near Smyrna, in Persia, the finest being produced in Kurdistan, and in Kashmir, the Punjab, and several other parts of India.

CARPINCHO, the largest living rodent, the capybara, a native of South America. Several thousand skins are exported annually from Buenos Aires.

CARRAGEEN, the Irish name for certain seaweeds, used for food, and now more particularly in invalid cookery. The true carrageen, or Irish moss, as it is commonly called, is of the order Florideæ. It is collected largely in the west of Ireland and on the American coast. The gelatine prepared from the seaweed is used by manufacturers of paper, felt, straw hats, &c. Ceylon moss, of similar properties, is another seaweed, and several other species from India and Australia enter into commerce.

CARRARA MARBLE, a white saccharoid limestone of Jurassic age, especially valuable to sculptors on account of its fine grain and uniform color. It is quarried at Carrara, thirty miles from Leghorn.

CARRIAGE BODIES, In the White.

Ackland, D., Son, Ltd., Winnipeg, Man.
Brooks Body & Gear Co., London, Ont.
Conboy Carriage Co., Ltd., The, Toronto, Ont.
Gray-Sons-Campbell, Wm., Ltd., The, Chatham, Ont.
Guelph Carriage Top Co., Guelph, Ont.
Latta, D. G., Ltd., Edmonton, Alta.

CARRIAGE PARTS.

Ackland, D., & Son, Ltd., Winnipeg, Man.
Brooks Body & Gear Co., London, Ont.
Canada Wheel Works, Ltd., Merritton, Ont.
Conboy Carriage Co., Ltd., The, Toronto, Ont.
Finlay, J., & Sons Co., Norwood, Ont.
Guelph Carriage Top Co., Guelph, Ont.
Heard, John, & Co., Thomas, Ont.
McKillop, A., & Sons, Ltd., West Lorne, Ont.
Victoria Wheel Works, Galt, Ont.
Windsor Turned Goods Co., Ltd., Windsor, Ont.

CARRIAGE TOP MATERIAL.

Steel Co. of Canada, Ltd., Toronto, Ont.

CARRIAGE TOPS.

Auto Top & Body Co., Ltd., The, Toronto, Ont.
Auto Top & Supply Co., Ltd., Winnipeg, Man.
Canadian Top Co., Ltd., Tilbury, Ont.
Conboy Carriage Co., Ltd., The, Toronto, Ont.
Guelph Carriage Top Co., Guelph, Ont.

CARRIAGES.

Barber Carriage Co., Ltd., Alton, Ont.
Barrie Carriage Co., Ltd., Barrie, Ont.
Baynes Carriage Co., Ltd., The, Hamilton, Ont.
Bonhomme, Jos., Montreal, Que.
Brantford Carriage Co., Ltd., Brantford, Ont.
Brown, S., Toronto, Ont.
Campbell, John, & Sons, London, Ont.
Campbell, Geo., & Sons, Ltd., Sackville, N.B.
Canada Carriage Co., Brockville, Ont.
Carette, Thos. & Son, Ste. Marie, Que.
Clark, J. & Sons, Fredericton, N.B.
Collett's Carriage Works, Toronto, Ont.
Conboy Carriage Co., Ltd., The, Toronto, Ont.
Crow, T. A., Toronto, Ont.
Dominion Carriage Co., West Toronto, Ont.
Dougall, John F., Winnipeg, Man.
Dufour, Joseph, Ottawa, Ont.
Edgecombe, A. G., St. John, N.B.
Finnegan Carriage & Wagon Co., Ltd., Belleville, Ont.
Granby Carriage Co., The, Granby, Que.
Graham, Cunningham and Naves, St. John, N.B.
Gray-Sons-Campbell, The Wm., Ltd., Chatham, Ont.
Greer, A. B., London, Ont.
Heney Carriage & Harness Co., Ltd., Montreal, Que.
Latour & Frere, Lesage, Que.
Lawrie Wagon & Carriage Co., The, Winnipeg, Man.
Ledoux Carriage Co., Ltd., The, Montreal, Que.
Lochrie, James, Toronto, Ont.
McKenzie Carriage Works, Brandon, Man.
McKie Buggy Co., Plattsville, Ont.
McLaughlin Carriage Co., Ltd., Oshawa, Ont.
Milner, Robert, Chatham, Ont.
Mitchell & Co., Ingersoll, Ont.
Moisan, Hubert, Quebec, Que.
Montreal Carriage Works, Montreal, Que.
Munro & McIntosh Carriage, Co., Ltd., Alexandria, Ont.
Nova Scotia Carriage & Motor Car Co., Ltd., Amherst, N.S.
O'Neill, J. N., Georgetown, Ont.
Ottawa Car Co., Ltd., Ottawa, Ont.
Patterson, J. D. & Co., Hamilton, Ont.
Simpson, The I. Mfg. Co., Ltd., Brantford, Ont.
Sinclair, Dugald, Lindsay, Ont.
Thompson, W. J. & Sons, London, Ont.
Tudhope Carriage Co., Ltd., Orillia, Ont.
Union Carriage Co., Kentville, N.S.
Vancouver Carriage & Implement Co., Vancouver, B.C.
Waller, T. C. & Sons, Tillsonburg, Ont.
Watson Carriage Co., Ltd., Ottawa, Ont.
Whitaker, Wm., & Sons, Oakville, Ont.

CARRIAGES, Baby, Reed and Rattan.

Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Gendron Mfg. Co., Ltd., Toronto, Ont.
Giddings, H. F., & Co., Granby, Que.
Smith, J. S., & Co., Windsor, N.S.

CARRIAGES, Baby, Wooden.

Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Gendron Mfg., Ltd., Toronto, Ont.

CARRIAGES AND GO-CARTS, Doll.

Gendron Mfg. Co., Ltd., Toronto, Ont.

CARRIERS, Cash and Package.

Hamilton Brass Mfg. Co., Ltd., Hamilton, Ont.

CARRIERS, Hay, Feed and Grain and Litter.

Beath, W. D. & Son, Ltd., Toronto, Ont.
Beatty Bros., Ltd., Fergus, Ont.
Dillon, R., & Son, Oshawa, Ont.
Louden Machinery Co., Guelph, Ont.
McFarlane, Neill Mfg. Co., Ltd., The, St. Mary's, N.B.

CARRIERS, Merchandise.

Allith Mfg. Co., Ltd., Hamilton, Ont.
Beath, W. D., & Son, Ltd., Toronto, Ont.
Richards—Wilcox Canadian Co., Ltd., London, Ont.

CARRIERS, For Threshing Machines.

Canadian Rumely Co., Ltd., Toronto, Ont.

CARRIERS, Timber.

Canadian Warren Axe & Tool Co., Ltd., St. Catharines, Ont.
Lachute Shuttle Co., Ltd., Lachute Mills, Que.

CARS, Dump.

Asbestos Foundry Co., Inc., Thetford Mines, Que.
Bechtels, Ltd., Waterloo, Ont.
Canadian Car & Foundry Co., Ltd., Montreal, Que.
Crossen Car Co., Ltd., Cobourg, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Marsh & Henthorn, Ltd., Belleville, Ont.
Mussen's, Ltd., Montreal, Que.
Owen Sound Iron Works Co., Ltd., Owen Sound, Ont.
Rathburn Co., The, Deseronto, Ont.

CARS, Electric (Street).

Canadian Car & Foundry Co., Ltd., Montreal, Que.
Crossen Car Co., Ltd., Cobourg, Ont.
Montreal Tramways Co., Ltd., Montreal, Que.
Nova Scotia Car Works, Ltd., Halifax, N.S.
Ottawa Car Co., Ltd., Ottawa, Ont.
Preston Car & Coach Co., Ltd., Preston, Ont.
Tillsonburg Car Co., Ltd., Tillsonburg, Ont.

CARS, Gas-Electric.

Canadian General Electric Co., Ltd., Toronto, Ont.
Preston Car & Coach Co., Ltd., Preston, Ont.

CARS, Hand, Railway.

Bessette, La Cie, J. & S., Ltd., Iberville, Que.
Crossen Car Co., Ltd., Cobourg, Ont.

CARS, Lumber, Brick and Tile Drying.

Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Sheldon's, Ltd., Galt, Ont.

CARS, Mine.

Brown Machine Co., Ltd., New Glasgow, N.S.
Calgary Iron Works, Ltd., The, Calgary, Alta.
Canadian Car & Foundry Co., Ltd., Montreal, Que.
Crossen Car Co., Ltd., Cobourg, Ont.
Cummings, J. W., & Son, Ltd., New Glasgow, N. S.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Latta, D. G., Ltd., Edmonton, Alta.
Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
Marsh & Henthorn, Ltd., Belleville, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
McNeil, Wm. P., & Co., New Glasgow, N.S.
Rathbun Co., The, Deseronto, Ont.
Sudbury Construction & Machinery Co., Ltd., The, Sudbury, Ont.
Vancouver Engineering Works, Ltd., Vancouver, B.C.

CARS, Railway, Freight and Passenger, Steel and Wood.

Canadian Car & Foundry Co., Ltd., Montreal, Que.
Crossen Car Co., Ltd., Cobourg, Ont.
Lake Superior Corporation, The, Sault Ste. Marie, Ont.
National Steel Car Co., Ltd., Hamilton, Ont.
Nova Scotia Car Works, Ltd., Halifax, N.S.
Preston Car & Coach Co., Ltd., Preston, Ont.
Rathbun Co., Ltd., The, Deseronto, Ont.

CARS, Railway, Motor.

Canadian Pneumatic Tool Co., Ltd., Montreal, Que.
Russell Motor Car Co., Ltd., West Toronto, Ont.

CARS, Side; for Motorcycles.

Brantford Auto Cycles, Ltd., Brantford, Ont.

CARS, Tank, Oil and Liquid.

Crossen Car Co., Ltd., Cobourg, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Toronto Iron Works Co., Ltd., Toronto, Ont.

CARTHAMIN. (See Safflower.)

CARTON-PIERRE. (See Papier-mache.)

CARTONS, Bottle, Corrugated.

Standard Paper Box Co., Ltd., The, Montreal, Que.
Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.

CARTONS, Egg.

Dominion Paper Box Co., Ltd., Toronto, Ont.

CARTONS, Spice and Jelly Powder, etc.

Canada Carton Co., Ltd., The, London, Ont.
Harris Lithographing Co., Toronto, Ont.
Standard Paper Box Co., Ltd., The, Montreal, Que.

CARTRIDGES.

Eley Bros., Ltd., North Transcona, Man.
Dominion Cartridge Co., Ltd., Montreal, Que.
Dominion Explosives, Ltd., Ottawa, Ont.
Hingston-Smith Arms Co., Ltd., Winnipeg, Man.
Remington Arms United Metallic Cartridge Co., Windsor, Ont.

CARTS, Dump.

Adams Wagon Co., Ltd., Brantford, Ont.
Bain Wagon Co., Ltd., Woodstock, Ont.
Collett's Carriage Works, Toronto, Ont.
Jennings, A., & Co., Montreal, Que.
Latour & Frere, Lesage, Que.
McKillop, A., & Sons, Ltd., West Lorne, Ont.
Meaford Wheelbarrow Co., Ltd., Meaford, Ont.
Mussen's, Ltd., Montreal, Que.
Ottawa Car Co., Ltd., Ottawa, Ont.
Petrolia Wagon Co., Ltd., Petrolia, Ont.
Woodstock Wagon & Mfg. Co., Ltd., Woodstock, Ont.

CARTS, Hand.

Meaford Wheelbarrow Co., Ltd., Meaford, Ont.

CARTS, Rapid Delivery.

Barrie Carriage Co., Ltd., Barrie, Ont.
Freeman, The W. A., Co., Ltd., Hamilton, Ont.

CARTS, Road and Speeding.

Simpson, The I., Mfg. Co., Ltd., Brantford, Ont.

CASCARA SAGRADA, the bark of a shrub of the buckthorn family, which grows in North-Western America, and yields a fluid extract much used as a purgative.

CASCARILLA, an aromatic bark with tonic and astringent properties. It is the bark of the Croton eluteria, which grows in the Bahamas, where it is known as sweet-wood and seaside balsam.

CASE-HARDENING, a process by which the surface of certain iron goods is converted into steel.

CASED SKINS, whole skins of fur-bearing animals, not cut open at the belly.

CASES, Egg.

Alberta Box Co., Ltd., Calgary, Alta.
Barchard & Co., Ltd., Toronto, Ont.
Cushing Bros., Co., Ltd., Calgary, Alta.
Czerwinski Box Co., Ltd., The, Winnipeg, Man.
Esplin, G. & J., Montreal, Que.
Holmes & Arpin, Montreal, Que.

CASES, Jewellery.

Canada Jewellery Case Co., Ltd., The, Toronto, Ont.
Coulter, The J., Co., Ltd., Toronto, Ont.
Ellis, P. W., & Co., Ltd., Toronto, Ont.
Hodgson, W. A., Montreal, Que.
Wade Mfg. Co., Dundas, Ont.

CASES, Leather, (Cutlery, Dressing, Fancy, Shaving, Toilet, Etc.)

Canada Jewellery Case Co., Ltd., The, Toronto, Ont.
Coulter, The J., Co., Ltd., Toronto, Ont.
Eveleigh, J., & Co., Ltd., Montreal, Que.
General Leather Goods, Ltd., Toronto, Ont.
Kelly's, Ltd., Halifax, N.S.
Sale, Julian, Leather Goods Co., Ltd., Toronto, Ont.
Standard Leather Goods, Ltd., Montreal, Que.
Winnett & Wellinger, Ltd., Toronto, Ont.

CASES, Packing, Corrugated Paper, Collapsible.

Adams Cellboard Co., The, Toronto, Ont.
Canada Paper Box Co., Ltd., Montreal, Que.
Freed Paper Box Co., The, Montreal, Que.
Martin Corrugated Paper & Box Co., Ltd., Toronto, Ont.
Standard Paper Box Co., Ltd., Montreal, Que.
Stronglite Box Co., Ltd., The, Ottawa, Ont.
Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.

CASES, Sample, Leather and Fibre.

Collett-Sproule, Ltd., Toronto, Ont.
Commercial Trunk Co., Ltd., London, Ont.
Christie Trunk & Bag Co., Ltd., Amherst, N.S.
Fournier, J. E., Montreal, Que.
Hodgson, W. A., Montreal, Que.

Lamontagne, Ltd., Montreal, Que.
Langmuir, The, M., Mfg. Co., of Toronto, Ltd., Toronto, Ont.
Stewart, T. A., Winnipeg, Man.
Taylor, G. R., & Co., Winnipeg, Man.

CASHEW NUTS, the fruits of Anacardium occidentale, which is cultivated in the West Indies, South America, Africa, and the East Indies. They contain an oil, which is used as a protection against ants and helps to make an indelible ink. Cashew gum exudes from the stem of the tree. The wood is also useful.

CASHMERE.—In Cashmere, shawls are manufactured of the fine silky underwool of the Cashmere goat. The plain shawls are woven in a rude loom, those with variegated patterns are worked with wooden needles. Imitation shawls are extensively manufactured in France, some entirely of the Cashmere or Tibet hair, and the material of fine wool called Cashmere is now manufactured in Europe.

CASINGS, Hog and Sheep.

Freeman, The W. A. Co., Ltd., Hamilton, Ont.
Harris, W., & Co., Toronto, Ont.
Ingersoll Packing Co., Ltd., The, Ingersoll, Ont.
Swift Canadian Co., Ltd., Winnipeg, Man.
Wild, Hugo Co., Montreal, Que.

CASSAVA, another name for manioc. The starchy substance obtained from the tubers is called Brazilian arrowroot. The inspissated juice, called cassareep, is used in the manufacture of sauces.

CASSIA. (See CINNAMON.)

CASTERS, Furniture and Piano.

Onward Mfg. Co., The, Berlin, Ont.
Denton, L. B., & Co., Woodstock, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.

CASTERS, Truck.

Brantford Oven & Rack Co., Ltd., Brantford, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Springer Lock Co., Ltd., Belleville, Ont.

CASTILE SOAP. (See SOAP.)

CASTINGS, Aluminium.

Alberta Iron Works, Ltd., Calgary, Alta.
Canada Metal Co., Ltd., Toronto, Ont.
City Brass Works, Hamilton, Ont.
Cummings Brass, Iron & Wire Co., Ltd., Winnipeg, Man.
Cuthbert, W. R. & Co., Montreal, Que.
Galt Malleable Iron Co., Ltd., Galt, Ont.
Gies, Philip, Berlin, Ont.
Gosselin, J. A., La Compagnie, Drummondville, Que.
Hamilton Pattern Works, The, Hamilton, Ont.
Lumen Bearing Co., West Toronto, Ont.
Lymburner, Ltd., Montreal, Que.
McAvity R. & Sons, Ltd., St. John, N.B.
Mueller, H., Mfg. Co., Ltd., Sarnia, Ont.
Peterson Bros., Iron Works, Winnipeg, Man.
Tallman Brass & Metal Co., Hamilton, Ont.
Terminal City Iron Works, Vancouver, B.C.
Union Screen Plate Co. of Canada, Ltd., Lennoxville, Que.
Valleyfield Iron Works, Valleyfield, Que.
Westport Mfg. & Plating Co., Ltd., The, Westport, Ont.

CASTINGS, Brass, Bronze and Copper.

Acme Stamping and Tool Works, Ltd., Hamilton, Ont.
Acorn Brass Mfg. Co., Ltd., Winnipeg, Man.
Alberta Iron Works, Ltd., Calgary, Alta.
Barber, Chas. & Sons, Meaford, Ont.
Beaver Brass Mfg. Co., Ltd., The, Toronto, Ont.
Belleville Hardware & Lock Mfg. Co., Ltd., Belleville, Ont.
Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Boundary Iron Works, Grand Forks, B.C.
Bruce Agricultural Works, The, Teeswater, Ont.
Canada Iron Corporation, Ltd., Montreal, Que.
Canada Metal Co., Ltd., Toronto, Ont.
Canadian Brass Co., Ltd., Galt, Ont.
Canadian Bronze Co., Ltd., Montreal, Que.
Chadwick Brass Co., Ltd., The, Hamilton, Ont.
City Brass Works, Hamilton, Ont.
Collingwood Shipbuilding Co., Ltd., Collingwood, Ont.
Colonial Fixtures, Ltd., Cobourg, Ont.
Corbet Foundry Co., The, Owen Sound, Ont.
Crossen Car Co., Ltd., Cobourg, Ont.
Cummings Brass, Iron & Wire Co., Ltd., Winnipeg, Man.
Cuthbert, W. R. & Co., Montreal, Que.
Dean Bros., Toronto, Ont.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Economy Foundry Co., Ltd., Winnipeg, Man.
Elmwood Brass Foundry, Winnipeg, Man.
Empire Mfg. Co., Ltd., London, Ont.
Fleck Alexander, Ltd., Ottawa, Ont.
Fleming, James, St. John, N.B.
Galt Brass Co., Ltd., Galt, Ont.
Garth Co., The, Montreal, Que.
General Car & Machinery Works, Ltd., Montmagny, Que.
Gies, Philip, Berlin, Ont.
Gosselin, J. A., La Compagnie, Drummondville, Que.
Granby Hardware Mfg. Co., Granby, Que.
Hahn Brass Co., Ltd., The, New Hamburg, Ont.
Hall Engineering Works, The, Montreal, Que.
Hamilton Brass Mfg. Co., Ltd., Peterborough, Ont.
Hamilton Pattern Works, Hamilton, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Heaps Engineering Co., Ltd., New Westminster, B.C.
Hutchison & Sticht, Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Keiths, Ltd., Toronto, Ont.
Kerr Engine Co., Ltd., The, Walkerville, Ont.
Kinzinger, Bruce & Co., Ltd., Niagara Falls, Ont.
Liverpool Foundry, Liverpool, N.S.
Lake Superior Corporation, The, Sault Ste. Marie, Ont.
Lawson, Thomas & Sons, Co., Ltd., Ottawa, Ont.
Lee Mfg. Co., Ltd., Pembroke, Ont.
Lethbridge Iron Works Co., Lethbridge, Alta.
Letson & Burpee, Ltd., Vancouver, B.C.
Lumen Bearing Co., West Toronto, Ont.
Lymburner, Ltd., Montreal, Que.
Macdonald & Co., Ltd., Halifax, N.S.
Mainland Iron Works, Ltd., Vancouver, B.C.
Marine Iron Works, Victoria, B.C.
Maritime Foundry and Machine Works, Ltd., Chatham, N.B.
Matheson, I. & Co., Ltd., New Glasgow, N.S.
McAvity, T. & Sons, Ltd., St. John, N.B.
McKeough & Trotter, Ltd., Chatham, Ont.
Midland Engine Works, Co., Midland, Ont.
Miller, Ltd., London, Ont.
Mitchell, The Robert Co., Ltd., Montreal, Que.
Morrison, The Jas. Brass Mfg. Co., Ltd., Montreal, Que.
Mowry & Sons, Gravenhurst, Ont.
Mueller, H., Mfg. Co., Ltd., Sarnia, Ont.
Murray & Fraser, New Glasgow, N.S.
Muskoka Foundry Co., Bracebridge, Ont.
National Brass, Ltd., The, London, Ont.
National Hardware Co., Ltd., Orillia, Ont.
Nelson Iron Works, Ltd., Nelson, B.C.
New Burrell-Johnson Iron Co., Ltd., The, Yarmouth, N.S.
North-Western Brass Co., Ltd., Winnipeg, Man.
Nova Scotia Car Works, Ltd., Halifax, N.S.
Ottawa Car Mfg. Co., Ltd., Ottawa, Ont.
Oxford Foundry & Machine Co., Ltd., Oxford, N.S.
Owen Sound Iron Works Co., Ltd., Owen Sound, Ont.
Payette, The P. Co., Penetanguishene, Ont.
Peterson Bros., Iron Works, Winnipeg, Man.
Plessisville Foundry Co., Ltd., The, Plessisville, Que.

Robertson, The Jas. Co., Ltd., Montreal, Que.
Ross & Howard, Iron Works Co., Ltd., Vancouver, B.C.
St. Thomas Brass Co., Ltd., St. Thomas, Ont.
Shaw & Mason, Ltd., Sydney, N.S.
Skinner Co., Ltd., The, Gananoque, Ont.
Sleeper & Akhurst, Coaticook, Que.
Smith Foundry Co., Ltd., The, Fredericton, N.B.
Spramotor Co., London, Ont.
Springer Lock Co., Ltd., Belleville, Ont.
Stratford Brass Co., Ltd., The, Stratford, Ont.
Sudbury Construction & Machinery Co., Ltd., The, Sudbury, Ont.
Tallman Brass & Metal Co., Hamilton, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
Terminal City Iron Works, Vancouver, B.C.
Toronto Brass Mfg. Co., Toronto, Ont.
Union Foundry & Machine Works, Ltd., St. John, N.B.
Union Screen Plate Co. of Canada, Ltd., Lennoxville, Que.
United Brass & Lead, Ltd., Toronto, Ont.
Valleyfield Iron Works, Valleyfield, Que.
Vulcan Iron Works, Ltd., Winnipeg, Man.
Westport Mfg. & Plating Co., Ltd., The, Westport, Ont.
Wilson & Cousins, Toronto, Ont.
Wilson, J. C. & Co., Glenora, Ont.
Windsor Foundry & Machine Co., Ltd., Windsor, N.S.

CASTINGS, Iron.

Alberta Foundry & Machine Co., Ltd., Medicine hat, Alta.
Alberta Iron Works, Ltd., Calgary, Alta.
Asbestos Foundry Co., Inc., Thetford Mines, Que.
Barber, Chas. & Sons, Meaford, Ont.
Barker, D. J. & Co., Picton, Ont.
Bayview Foundry Co., Ladysmith, B.C.
Beauceville, La Fonderie de, Beauceville East, Que.
Beaupre & Fils, Montreal, Que.
Beaver Stove & Machinery Co., Ltd., Grand Mere, Que.
Belanger, A., Montmagny, Que.
Belgo-Canadian Steel, Ltd., Montreal, Que.
Bell, B. & Son Co., Ltd., St. George, Ont.
Belleville Hardware & Lock Mfg. Co., Ltd., Belleville, Ont.
Bertrand, La Cie, F. X., Manufacturiere, Limitee, St. Hyacinthe, Que.
Bigley, The R. Mfg. Co., Ltd., Toronto, Ont.
Boundary Iron Works, Grand Forks, B.C.
Bowmanville Foundry Co., Ltd., Bowmanville, Ont.
British Columbia Foundry & Engine Works, Esquimault, B.C.
Bruce Agricultural Works, The, Teeswater, Ont.
Canada Iron Corporation, Ltd., Montreal, Que.
Canada Stove & Furniture Co., Ltd., Montreal, Que.
Canadian Car & Foundry Co., Ltd., Montreal, Que.
Connell Bros., Ltd., Woodstock, N.B.
Corbet Foundry Co., Owen Sound, Ont.
Crockett Bros., Westville, N.S.
Crowe's Iron Works, Guelph, Ont.
Deruchie Bros., Cornwall, Ont.
Desjardins La Cie., St. Andre, Kamouraska County, Que.
Dickson Bridge Works Co., Ltd., Campbellford, Ont.
Dodge Manufacturing Co., Ltd., Toronto, Ont.
Dominion Stove & Foundry Co., Penetanguishene, Ont.
Dominion Wheel & Foundries, Ltd., Toronto, Ont.
Don Foundry Co., Toronto, Ont.
Douglas & Co., Dartmouth, N.S.
Dunbar Engine & Foundry Co., Woodstock, Ont.
Dussault & Lamoreaux, St. Hyacinthe, Que.
Economy Foundry Co., Ltd., Winnipeg, Man.
Edmonton Iron Works, Ltd., Edmonton, Alta.
Erie Iron Works, Ltd., St. Thomas, Ont.
Fittings, Ltd., Oshawa, Ont.
Fleck, Alexander, Ltd., Ottawa, Ont.
Fleming, James, St. John, N.B.
Fonderie et Machinerie, Limitee, La Cie. de, St. Flavie, Que.
Fraser Machine & Motor Co., Ltd., New Glasgow, N.S.
Fraserville Foundry Co., Fraserville, Que.
Galloway Taylor Co., Toronto, Ont.
Galt Malleable Iron Co., Ltd., Galt, Ont.
Gies, Philip, Berlin, Ont.
Gilson, Mfg. Co., Ltd., Guelph, Ont.
Golley & Finley, Merlin, Ont.
Gosselin, J. A., La Cie., Drummondville, Que.
Great West Specialty & Iron Foundry Co., Ltd., Edmonton, Alta.
Green, The G. Walter Co., Ltd., Peterborough, Ont.
Griffin, Thomas, Guelph, Ont.
Haines & Holmes, Norwich, Ont.
Hall Engineering Works, The, Montreal, Que.
Hamilton Foundry Co., Hamilton, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Hartley Foundry Co., Brantford, Ont.
Heaps Engineering Co., Ltd., New Westminster, B.C.
Hepburn, John T., Toronto, Ont.
Hilborn Co., The, Ayr, Ont.
Hillis & Sons, Ltd., Halifax, N.S.
Hunter Bridge & Boiler Co., Ltd., Kincardine, Ont.
Inglis, The John, Co., Ltd., Toronto, Ont.
International Malleable Iron Co., Ltd., Guelph, Ont.
Jackson Bros., Strathcona, Alta.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Kennedy, Wm., & Sons, Ltd., Owen Sound, Ont.
Kerr Engine Co., Ltd., Walkerville, Ont.
Kerr & Coombes Foundry Co., Ltd., Hamilton, Ont.
Lethbridge Iron Works Co., Ltd., Lethbridge, Alta.
London Foundry Co., Ltd., The, London, Ont.
Long, The E. Mfg. Co., Ltd., Orillia, Ont.
Mainland Iron Works, Ltd., Vanrouver, B.C.
Matheson, I. & Co., Ltd., New Glasgow, N.S.
Maritime Foundry & Machine Works, Ltd., Chatham, N.B.
Maxwell, David, & Sons, St. Mary's, Ont.
McAvity, T. & Sons, Ltd., St. John, N.B.
McCrae, John, Lindsay, Ont.
Macdonald & Co., Ltd., Halifax, N.S.
McDougall, The John, Caledonian Iron Works, Co., Ltd., Montreal, Que.
McLachlan, John, Cannington, Ont.
McLean, Holt & Co., St. John, N.B.
Midland Engine Works, Co., Midland, Ont.
Mowry & Sons, Gravenhurst, Ont.
Murray & Fraser, New Glasgow, N.S.
Muskoka Foundry Co., Bracebridge, Ont.
Napanee Iron Works, Napanee, Ont.
National Hardware Co., Ltd., Orillia, Ont.
New Burrell-Johnson Iron Co., Ltd., The, Yarmouth, N.S.
New Hamburg Mfg. Co., Ltd., New Hamburg, Ont.
Norsworthy, The C. Co., Ltd., St. Thomas, Ont.
Northern Foundry & Machine Co., Sault Ste. Marie, Ont.
Nova Scotia Car Works, Ltd., Halifax, N.S.
Oxford Foundry & Machine Co., Ltd., Oxford, N.S.
Owen Sound Iron Works Co., Ltd., Owen Sound, Ont.
Ottawa Car Mfg. Co., Ottawa, Ont.
Pacific Iron Works, Vancouver, B.C.
Payette, The P. Co., Penetanguishene, Ont.
Peterson Bros., Iron Works, Winnipeg, Man.
Plessisville Foundry Co., Ltd., The, Plessisville, Que.
Quinn, Thos. W., Liverpool, N.S.
Record Foundry & Machine Co., Moncton, N.B.
Richardson, C. & Co., St. Mary's, Ont.
St. Lawrence Iron Foundry Co., Ltd., Montreal, Que.
Saskatchewan Bridge & Iron Co., Ltd., Moose Jaw, Sask.
Shaw & Mason, Ltd., Sydney, N.S.
Sleeper & Akhurst, Coaticook, Que.
Smart, The James Mfg. Co., Ltd., Brockville, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Springer Lock Co., Ltd., Belleville, Ont.
Standard Foundry & Machine Co., Ltd., Longueil, Que.
Stevens Co., of Galt, Ltd., The, Galt, Ont.
Stewart, The Jas. Mfg. Co., Ltd., Woodstock, Ont.
Strong-Scott Mfg. Co., Ltd., Winnipeg, Man.
Sussex Mfg. Co., Ltd., Sussex, N.B.

Taylor-Forbes Co., Ltd., Guelph, Ont.
Terminal City Iron Works, Victoria, B.C.
Thetford, La Fonderie de Cie, Limitee, Thetford Mines, Que.
Thompson, A. C., Ltd., North Sydney, N.S.
Tomlinson, T. & Son, Toronto, Ont.
Treloar, Blashford & Co., Toronto, Ont.
Truro Foundry & Machine Co., Ltd., Truro, N.S.
Union Foundry & Machine Co., Ltd., St. John, N.B.
Valleyfield Iron Works, Valleyfield, Que.
Vancouver Engineering Works, Ltd., Vancouver, B.C.
Vancouver Pipe & Foundry Co., Ltd., The, Vancouver, B.C.
Victoriaville Foundry Co., Victoriaville, Que.
Walker Foundry Co., Belleville, Ont.
Waterous Engine Works, Co., Ltd., Brantford, Ont.
Watson, John, Mfg., Co., Ltd., Ayr, Ont.
Wedell, R., Foundry and Machine Shops, Trenton, Ont.
Welland Machine & Foundries, Ltd., Welland, Ont.
Western Foundry & Machine Co., Saskatoon, Sask.
Western Foundry & Metal Co., Ltd., Calgary, Alta.
Western Steel and Iron Co., Ltd., Winnipeg, Man.
Westport Mfg. Co. & Plating Co., Ltd., The, Westport, Ont.
Williams Mfg. Co., Ltd., The, Montreal, Que.
Wilson, J. C. & Co., Glenora, Ont.
Winnipeg Foundry Co., Ltd., Winnipeg, Man.
Woodstock Wind Motor Co., Ltd., Woodstock, Ont.

CASTINGS, Gunmetal.

McAvity, T. & Sons, Ltd., St. John, N.B.

Beaupre & Fils, Montreal, Que.
Canadian Car & Foundry Co., Ltd., Montreal, Que.
Canadian Malleable Iron Co., Ltd., Owen Sound, Ont.
Desjardins, La Cie, St. Andre, Kamourska County, Que.
Galt Malleable Iron Co., Ltd., Galt, Ont.
International Harvester Co. of Canada, Ltd., Hamilton, Ont.
International Malleable Iron Co., Ltd., Guelph, Ont.
McKinnon Dash Co., St. Catharines, Ont.
National Pipe & Foundry Co., Ltd., Alexandria, Ont.
Ontario Malleable Iron Co., Ltd., Oshawa, Ont.
Pratt & Letchworth Co., Ltd., Brantford, Ont.
Smith's Falls Malleable Castings Co., Ltd., Smith's Falls, Ont.
Western Steel & Iron Co., Ltd., Winnipeg, Man.

CASTINGS, Nickel.

Mueller, H., Mfg. Co., Ltd., Sarnia, Ont.
National Brass, Ltd., The, London, Ont.

CASTINGS, Nickel Steel.

Joliette Steel & Iron Foundry, Joliette, Que.

CASTINGS, Semi-Steel.

Alberta Iron Works, Ltd., Calgary, Alta.
Bigley, The R., Mfg. Co., Ltd., Toronto, Ont.
Maritime Foundry & Machine Works, Ltd., Chatham, N.B.
Miller Bros. & Sons, Ltd., Montreal, Que.
Muskoka Foundry Co., Bracebridge, Ont.
Payette, The P., Co., Penetanguishene, Ont.
Western Steel & Iron Co., Ltd., Winnipeg, Man.

CASTINGS, Steel.

Beauchemin & Fils, Ltd., Sorel, Que.
Belgo-Canadian Steel, Ltd., Montreal, Que.
Canadian Brake Shoe Co., Ltd., Sherbrooke, Que.
Canadian Steel Foundries, Ltd., Welland, Ont.
Crescent Machine Co., Ltd., The, Montreal, Que.
Dominion Steel Foundry, Ltd., Hamilton, Ont.
Joliette Steel & Iron Foundry, Joliette, Que.
Kennedy, Wm. & Sons, Ltd., Owen Sound, Ont.
Vancouver Engineering Works, Ltd., Vancouver, B.C.
Western Steel & Iron Co., Ltd., Winnipeg, Man.

CASTINGS, White Metal.

Lumen Bearing Co., West Toronto, Ont.
Miller, Ltd., London, Ont.
Wade Mfg. Co., Dundas, Ont.

CASTOREUM, a secretion contained in two glands of the beaver, used by perfumers. The most esteemed comes from Russia, and fetches a higher price than the Canadian article.

CASTOR OIL, a small tree of the order Euphorbiaceæ, yields a mild purgative oil. The best oil is obtained by pressing the seeds without the application of heat, and is said to be cold drawn. The plant is a native of India, but is now cultivated in the Mediterranean countries, where it is called Palma Christi, and in America. The oil from larger varieties is also used as a lamp oil.

CATECHU. (See GAMBIER.)

CATGUT, strings of musical instruments are made from the intestines of sheep, not from catgut. The best come from Italy. Catgut is made in France from the intestines of horses, asses, and mules, and used in belts for driving small machines.

CATS.—The domestic cat is reared in several countries of Europe for the sake of its fur. The best skins come from Holland, and in East Friesland, Schleswig-Holstein, Styria, Bavaria, Switzerland, &c., the rearing of cats is a regular occupation. The skins of wild cats are obtained in several European countries and in Siberia. The black Siberian skins are known as jennet. About 955,000 catskins come into the market annually.

CAT'S-EYE, a rare mineral containing beryllium and alumina. The greyish-green stones found in Ceylon are highly valued gems.

CATSUPS.—(See Sauces and Catsups.)

CATTLE.—The total numbers of cattle in other meat-producing countries of the world are, as follows: United States 56,592,000 Russia, 36,306,000; Argentine, 29,016,000; Brazil, 25,000,000; Germany, 20,158,738; Austria, 17,788,000; France, 14,552,430; India, 13,687,133; United Kingdom, 11,936,000; Australia, 11,658,638; Uruguay, 8,192,602; Paraguay, 5,500,000; Mexico, 5,142,457; Spain, 2,561,894 Cuba, 2,829,553; New Zealand, 2,020,171; Belgium, 1,831,000; Servia, 858,000; Egypt, 619,540; Switzerland, 1,443,483.

According to the latest estimate, for the year 1914, there are 2,673,286 milch cows in Canada, valued at $153,632,637, or an average value per head of $57.47. In the same year there were 3,363,531 beef cattle in Canada representing a value of $143,498,156. The total number of cattle of all kinds sold on the farms of Canada in 1910 was 1,752,792, valued at $60,438,593, including 368,155 milch cows, valued at $14,177,527, and the number of cattle exported in that year amounted to 157,386, valued at $10,792,156. The exports of cattle during the fiscal year ending March 31, 1915, numbered 185,924, valued at $9,272,584.

During the fiscal year, 1910, the exports of beef from Canada amounted to 1,318,397 lbs., valued at $109,993, while during the same period, 1915, the exports of beef amounted to 19,669,701 lbs., valued at $2,061,430. The exports of beef during the latter period were principally to the United States.

The imports of cattle into Canada chiefly consist of animals for improvement of stock, amounting during the fiscal year, 1915, to 331, valued at $57,333. The annual imports of beef into Canada during the fiscal year, 1915, was as follows: Beef, fresh, chilled or frozen, 771,295 lbs., valued at $70,830; beef, salted in barrels, 1,012,641 lbs., valued at $79,648. The farmer is imported chiefly from Australia, United States and New Zealand, and the latter from United States.

CAULDRONS.

Belanger, A., Montmagny, Que.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Smart, The Jas., Mfg. Co., Ltd., Brockville, Ont.

CAULKS, Boot, Lumbermen's Driving.

Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.

CAULKS, Horseshoe.

Gilmour Bros. & Co., Montreal, Que.
Pender, James, & Co., Ltd., St. John, N.B.

CAUSTIC SODA.

Canadian Alkali Co., Ltd., The, Windsor, Ont.
Canadian Salt Co., Ltd., The, Windsor, Ont.

CAVENDISH. (See TOBACCO.)

CAVIARE, the roe of various kinds of sturgeon, cleared from the connecting tissue and salted. The most esteemed is made from the roe of the sterlet. The best caviare is made in Astrakhan, South Russia, and the Crimea, and is exported to the surrounding countries, little reaching Western Europe, as it does not keep well. Caviare is also made in Pillau, Magdeburg, and Hamburg from Elbe sturgeons, and inferior kinds from the roes of other fish. It is also prepared in Italy, Norway, the United States and Canada.

CAYENNE PEPPER. (See CAPSICUMS.)

CEBADILLA. (See SABADILLA.)

CEDAR.—Is the most durable of all Canadian softwoods and on this account is used to a great extent for ties, poles, fence posts and rails. Its chief competitor as lumber, is the imported cypress. There are two commercial species of cedar, namely, Eastern or white cedar and Western or red cedar from British Columbia and the Western States. The wood of both species is soft and weak, but possesses a remarkably straight and fine grain and fine texture. It is easily and rapidly seasoned, easy to work and splits evenly. The Western specie grows to a larger size and is more abundant and more important commercially than the Eastern tree, but is lighter, softer and weaker and less durable and more spongy in texture. Cedar has always been a favorable material for small boats, canoes and launches, owing to its lightness and durability. (See WOOD.)

CEILINGS, Metal and Steel.

Campbell & Grill, Vancouver, B.C.
Canadian Metal Shelter Co., Winnipeg, Man.
Capital Sheet Metal Works, Edmonton, Alta.
Galt Art Metal Co., Ltd., The, Galt, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Metallic Roofing Co. of Canada, Ltd., Toronto, Ont., and Winnipeg, Man.
Ormsby, A. B., Ltd., Toronto, Ont., and Winnipeg, Man.
Pedlar People, Ltd., The, Oshawa, Ont.
Winnipeg Ceiling & Roofing Co, Winnipeg, Man.
Wright, J. T., Winnipeg, Man.
Wright, J. W., Winnipeg, Man.

CELLS, Electric, Dry and Wet.

Canadian Carbon Co., Ltd., Toronto, Ont.
Canadian National Carbon Co., Ltd., Toronto, Ont.

CELLULOID, a material formed of a mixture of gun cotton and oil, or sometimes camphor, thoroughly incorporated by hydraulic pressure. It is highly inflammable, and attempts have been made to render it less dangerous by mixing it with tungstate of soda or other non-combustible chemicals. Celluloid is largely used for making billiard balls, brush-backs, buttons, and other fancy articles.

CELLULOID SPECIALTIES.

Arlington Co., of Canada, Ltd., The, Toronto, Ont.
Dominion Comb & Novelty Co., Warwick, Que.
McComisky, R. B., & Co., Granby, Que.
Smith, D'Etremont Co., Ltd., The, Toronto, Ont.

CELLULOSE, the substance which lines young cells in plants, and in an impure state forms the harder parts. Natural cellulose in the form of cotton, flax, and wood is used in the manufacture of textiles, paper, gun-cotton, collodion, &c. A preparation of wood, consisting of almost pure cellulose, is known by this name in commerce.

CEMENT.—The best known and most widely used is known as Portland cement, which is so called from its resemblance to Portland stone. It is composed of three parts of white chalk and one of river mud, or of hard limestone and clay or shale. It is hardly ever used pure, but is mixed with sand. Roman cement is prepared from septarian nodules which are calcined and ground. These are composed of carbonate of lime, silica, alumina, and protoxide of iron. Various cements are made from limestone, plaster of Paris, borax, iron filings, red and white lead.

CEMENT, Asbestos, Furnace and Plastic.

Asbestos Mfg. Co., Ltd., The, Montreal.
Canadian Asbestos Co., Montreal, Que.
Canadian H. W. Johns-Manville Co., Ltd., The, Toronto.
Garlock Packing Co., The, Hamilton, Ont.
Hamilton Engine Packing Co., Hamilton, Ont.
Hilton, H., & Sons, Winnipeg, Man.
Moore, Benjamin, & Co., Ltd., Toronto, Ont.
Scarfe & Co., Brantford, Ont.
Sterne, G. F., & Sons, Brantford, Ont.

CEMENT, China Mending.

Buffalo Specialty Co., Bridgeburg, Ont.

CEMENT, Cloth.

Masse Industrial Co., The, Windsor, Ont.

CEMENT, Leather Belting.

Masse Industrial Co., The, Windsor, Ont.
Sadler & Haworth, Montreal, Que.

CEMENT, Mortar.

Commercial Cement Co., Ltd., Winnipeg, Man.

CEMENT, Portland.

Associated Cement Co. of Canada, Ltd., The, Vancouver, B.C.
Canada Cement Company, Ltd., Montreal, Que., 13 mills as follows
Mill No. 1, Montreal, Que.
" " 2, Montreal, Que.
" " 3, Hull, Que.
" " 4, Belleville, Ont.
" " 5, Belleville, Ont.
" " 6. Marlbank, Ont.
" " 7, Lakefield, Ont.
" " 8, Port Colborne, Ont.
" " 9, Shallow Lake, Ont.
" " 10, Calgary, Alta.
" " 11, Sandstone, Alta.
" " 12, Exshaw, Alta.
" " 13, Winnipeg, Alta.
Dupuis, H. & Son, Hull, Que.
Edmonton Portland Cement Co., Ltd., Edmonton, Alta.
Hanover Portland Cement Co., Ltd., Hanover, Ont.
Maple Leaf Portland Cement Co., Ltd., Toronto, Ont.
National Portland Cement Co., Ltd., The, Durham, Ont.
Ontario Portland Cement Co., Ltd., Brantford, Ont.
Rocky Mountain Cement Co., Ltd., Calgary, Alta.
St. Mary's Portland Cement Co., Ltd., Toronto, Ont.
Superior Portland Cement Co., Ltd., Orangeville, Ont.
Usher, Isaac, Queenston, Ont.
Vancouver Portland Cement Co., Ltd., Victoria, B.C.

CEMENT, Roofing.

Brantford Roofing Co., Ltd., Brantford, Ont.
Canadian Mineral Rubber Co., Ltd., Winnipeg, Man.
McArthur, Alex., & Co., Ltd., Montreal, Que.
Paterson Mfg. Co., Ltd., Montreal, Que., and Toronto, Ont.
Reed, George W., & Co., Ltd., Montreal, Que.

CEMENT, Rubber.

Boston Blacking Co., Montreal, Que.
Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Domestic Specialty Co., Ltd., Hamilton, Ont.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
Fisk, Ltd., Montreal, Que.
Masse Industrial Co., The, Windsor, Ont.
Plastics, Ltd., Toronto, Ont.
Richard & Co., Quebec, Que.
Walpole Rubber Co., Ltd., Montreal, Que.

CEMENT, Slag.

Sydney Cement Co., Ltd., Sydney, N.S.

CEMENT, Stove and Retort.

Canadian Asbestos Co., Montreal, Que.
Scarfe & Co., Brantford, Ont.
Sterne, G. F., & Sons, Brantford, Ont.

CEREALS.

Archibald Cereal Co., Ltd., Woodstock, Ont.
Canada Flour Mills Co., Ltd., Chatham, Ont.
Canadian Cereal & Flour Mills, Ltd., Toronto, Ont.
Canadian Postum Cereal Co., Ltd., Windsor, Ont.
Canadian Shredded Wheat Co., Ltd., Niagara Falls, Ont.
Chisholm Milling Co., Ltd., Toronto, Ont.
Columbia Flouring Mills Co., Ltd., Enderby, B.C.
Dow Cereal & Milling Co., Ltd., Neepawa, Man.
Eby-Blain, Ltd., Toronto, Ont.
Empire Flour Mills, Ltd., St. Thomas, Ont.
H.-O. Co., The, Hamilton, Ont.
Maritime Cornmeal Mills, St. John, N.B.
Monarch Pure Food Co., Ltd., Toronto, Ont.
Noble, Estate of Robt. Norval, Ont.
Ogilvie Flour Mills Co., Ltd., Montreal, Que.
Quaker Oats Co., The, Peterborough, Ont.
Robin Hood Mills, Ltd., Calgary, Alta.
White Swan Spices & Cereals, Ltd., Toronto, Ont.
Wigle, Colin, & Sons, Amherstburg, Ont.

CERESINE. (See OZOKERITE.)

CERTIFICATES, Bond, Share and Debenture.

American Bank Note Co., Ottawa, Ont.
Atlantic Lithographing Co., St. John, N.B.
Benallack, Lithographing & Printing Co., Ltd., Montreal, Que.
British American Bank Note Co., Ltd., Montreal, Que.
Consolidated Lithographing & Mfg. Co., Montreal, Que.
Copp, Clark Co., Ltd., The, Toronto, Ont.
London Printing & Lithographing Co., Ltd., London, Ont.
Rolph & Clark, Ltd., Toronto, Ont.
Smith, The David, Engraving & Lithographing Co., Toronto, Ont.
Stone, Ltd., Toronto, Ont.

CEYLON MOSS. (See CARRAGEEN.)

CHAIN BLOCK.

Beath, W. D., & Son, Ltd., Toronto, Ont.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Morris, The Herbert, Crane & Hoist Co., Ltd., Toronto, Ont.

CHAINS, Boom, Log and Saw Mill.

Coghlin, B. J., Co., Ltd., Montreal, Que.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
McFarlane, Neill Mfg. Co., Ltd., The, St. Mary's, N.B.
McKinnon Chain Co., St. Catharines, Ont.
Muskoka Foundry Co., Bracebridge, Ont.
Pink, Thomas, Pembroke, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

CHAINS, Breast, Cow, Dog, Halter, Trace, Etc.

Greening, The B., Wire Co., Ltd., Hamilton, Ont.
McKinnon Chain Co., St. Catharines, Ont.

CHAINS, Sprocket and Malleable (Detachable).

Canada Cycle & Motor Co., West Toronto, Ont.
Dodge Mfg. Co., Ltd., Toronto, Ont.
Jeffrey Mfg. Co., Montreal, Que.
Jones & Glassco, Montreal, Que.
Ontario Malleable Iron Co., Ltd., Oshawa, Ont.

CHAIRS, Assembly Hall, Church and Lodge Room.

Canadian Office & School Furniture Co., Ltd., The, Preston, Ont.
Danville Chair & Specialty Co., Ltd., Danville, Que.
Dominion Chair Co., Ltd., Bass River, N.S.
Fraserville Chair Co., Fraserville, Que.
Gelinas, C. P. & Frere, Three Rivers, Que.
Globe Furniture Co., Ltd., The, Waterloo, Ont.
Krug Bros. Co., Ltd., Chesley, Ont.

North American Bent Chair Co., Ltd., Owen Sound, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Royal Chair Co., Quebec, Que.
Stratford Mfg. Co., Ltd., Stratford, Ont.
Valley City Seating Co., Ltd., The, Dundas, Ont.

CHAIRS, Barbers'.

Jones Bros. & Co., Ltd., Toronto, Ont.

CHAIRS, Bent Wood.

North American Bent Chair Co., Ltd., Owen Sound, Ont.

CHAIRS, Camp and Folding.

Bell Furniture Co., Ltd., The, Southampton, Ont.
Canadian Rattan Chair Co., Ltd., Victoriaville, Ont.
Ferguson, John, & Sons, London, Ont.
Gelinas, C. P., & Frere, Three Rivers, Que.
Globe Furniture Co., Ltd., The, Waterloo, Ont.
Krug Bros. Co., Ltd., Chesley, Ont.
McKinnon Dash Co., St. Catharines, Ont.
North American Bent Chair Co., Ltd., Owen Sound, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Peterborough Canoe Co., Ltd., Peterborough, Ont.
Smith, Wm., & Son, Chesley, Ont.
Stratford Mfg. Co., Ltd., Stratford, Ont.
Valley City Seating Co., Ltd., The, Dundas, Ont.

CHAIRS, Children's.

Ball Furniture Co., Ltd., The, Hanover, Ont.
Bell Furniture Co., Ltd., The, Southampton, Ont.
Gelinas, C. P., & Frere, Three Rivers, Que.
North American Bent Chair Co., Ltd., Owen Sound, Ont.
Stratford Chair Co., Stratford, Ont.

CHAIRS, Easy, Upholstered and Rockers.

Baetz Bros. & Co., Berlin, Ont.
Ball Furniture Co., Ltd., The, Hanover, Ont.
Bell Furniture Co., Ltd., The, Southampton, Ont.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Canada Mattress Mfg. Co., Victoriaville, Que.
Coombe, The F. E., Furniture Co., Kincardine, Ont.
Dymond Colonial Co., Ltd., Strathroy, Ont.
Ellis Furniture Co., The, Ingersoll, Ont.
Elmira Furniture Co., Ltd., Elmira, Ont.
Fournier, Edouard, Montreal, Que.
Gelinas, C. P., & Frere, Three Rivers, Que.
Hachborn, Geo. H., & Co., Berlin, Ont.
Hibner, The D., Furniture Co., Ltd., Berlin, Ont.
Knechtel Furniture Co., Ltd., Hanover, Ont.
Krug, The H., Furniture Co., Ltd., Berlin, Ont.
Lippert Furniture Co., Ltd., Berlin, Ont.
Morlock Bros., Ltd., Hanover, Ont.
Mundell, John C., & Co., Elora, Ont.
North American Bent Chair Co., Ltd., Owen Sound, Ont.
Schierholtz Furniture Co., Ltd., New Hamburg, Ont.
Snyder Upholstering Co., Ltd., Waterloo, Ont.
Stratford Chair Co., Stratford, Ont.
Tombyll Upholstering & Frame Mfg. Co., Ltd., Montreal, Que.
Waterloo Furniture Co., Ltd., Waterloo, Ont.
Woeller, Bolduc & Co., Waterloo, Ont.
Wunder Furniture Mfg. Co., Ltd., Berlin, Ont.

CHAIRS, Hammock.

Canada Wood Specialty Co., Ltd., Orillia, Ont.
Stratford Mfg. Co., Ltd., Stratford, Ont.

CHAIRS, Household.

Asseltine, Henry B., Odessa, Ont.
Baetz Bros. & Co., Berlin, Ont.
Ball Furniture Co., Ltd., The, Hanover, Ont.
Chesley Chair Co., Ltd., Chesley, Ont.
Coombe, The F. E., Furniture Co., Ltd., Kincardine, Ont.
Danville Chair & Specialty Co., Ltd., The, Danville, Ont.
Dominion Chair Co., Ltd., Bass, River, N.S.
Durham Furniture Co., Ltd., Durham, Ont.
Dymond Colonial Co., Ltd., Strathroy, Ont.
Fraserville Chair Co., Fraserville, Que.
Gelinas, C. P. & Frere, Three Rivers, Que.
Gilmour, A., Coaticook, Que.
Harriston Furniture Mfg. Co., Harriston, Ont.
Hespeler Furniture Co., Ltd., Hespeler, Ont.
Hibner Furniture Co., Ltd., Berlin, Ont.
Knechtel Furniture Co., Ltd., Hanover, Ont.
Krug Bros. Co., Ltd., Chesley, Ont.
Krug, The H. Furniture Co., Ltd., Berlin, Ont.
Lippert Furniture Co., Ltd., Berlin, Ont.
Malcolm, The Andrew Furniture Co., Ltd., Kincardine, Ont.
McGill Chair Co., Ltd., Cornwall, Ont.
Mundell, John C. & Co., Elora, Ont.
North American Bent Chair Co., Ltd., Owen Sound, Ont.
Royal Chair Co., Quebec, Que.
St. Lawrence Furniture Co., River du Loup, Que.
Schierholtz Furniture Co., Ltd., The New Hamburg, Ont.
Stratford Chair Co., Stratford, Ont.
Toronto Furniture Co., Ltd., Toronto, Ont.
Victoriaville Chair Co., Ltd., Victoriaville, Que.
Waterloo Furniture Co., Ltd., Waterloo, Ont.
Woeller, Bolduc & Co., Waterloo, Ont.

CHAIRS, Invalid (Rolling and Carrying).

Gendron Mfg. Co., Ltd., Toronto, Ont.

CHAIRS, Leather Upholstered.

Bell Furniture Co., Ltd., The, Southampton, Ont.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Imperial Furniture Co., Toronto, Ont.
Mundell, John C., & Co., Elora, Ont.
North American Bent Chair Mfg. Co., Ltd., Owen Sound, Ont.
Office Specialty Co., Ltd., Toronto, Ont.
Schierholtz Furniture Co., Ltd., The, New Hamburg, Ont.
Snyder Bros. Upholstering Co., Ltd., Waterloo, Ont.

CHAIRS, Morris.

Canada Furniture Mfrs., Limited, Woodstock, Ont.
Canada Mattress Mfg. Company, Victoriaville, Que.
Coombe, The F. E., Furniture Company, Kincardine, Ont.
Ellis Furniture Co., The, Ingersoll, Que.
Krug, The H., Furniture Co., Ltd., Berlin, Ont.
Lippert Furniture Co., Ltd., Berlin, Ont.
Mundell, John C., & Co., Elora, Ont.
Schierholtz Furniture Co., Ltd., New Hamburg, Ont.
Waterloo Furniture Co., Ltd., Waterloo, Ont.

CHAIRS, Office and Typewriter.

Ball Furniture Co., Ltd., Hanover, Ont.
Bell Furniture Co., Ltd., Southampton, Ont.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Canadian Office & School Furniture Co., Ltd., The, Preston, Ont.
Coombe, The F. E., Furniture Co., Kincardine, Ont.
Gelinas, C. P., & Frere, Three Rivers, Que.
Krug, The H., Furniture Co., Ltd., Berlin, Ont.
Library Bureau of Canada, Ltd., Ottawa, Ont.
McGill Chair Co., Ltd., Cornwall, Ont.
Mundell, John C., & Co., Elora, Ont.
North American Bent Chair Co., Ltd., Owen Sound, Ont.
Office Specialty Mfg. Co., Ltd., Toronto, Ont.
Smart, The Jas., Mfg. Co., Ltd., Brockville, Ont.
Snider, J. B., Waterloo, Ont.
Stratford Chair Co., Stratford, Ont.

CHAIRS, Opera.

Canadian Office & School Furniture Co., Ltd., Preston, Ont.
Gelinas, C. P., & Frere, Three Rivers, Que.
Globe Furniture Co., Ltd., The, Waterloo, Ont.
Stratford Mfg. Co., Ltd., Stratford, Ont.
Valley City Seating Co., Ltd., The, Dundas, Ont.
Vilas, W. F., Cowansville, Que.

CHAIRS, Reed and Rattan, Office, Boat and Household.

Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Canadian Rattan Chair Co., Ltd., Victoriaville, Que.
Dominion Chair Co., Ltd., Bass River, N.S.
Gelinas, C. P., & Frere, Three Rivers, Que.
Gendron Mfg. Co., Ltd., Toronto, Ont.
Giddings, H. & F., Co., Granby, Que.
Imperial Rattan Co., Ltd., Stratford, Ont.
Kilgour, J. W., & Bro., Ltd., Beauharnois, Que.
Roxton Mill & Chair Co., Ltd., The, Waterloo, Que.

CHAIRS, Undertakers' Folding.

Globe Furniture Co., Ltd., The, Waterloo, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Stratford Mfg. Co., Ltd., Stratford, Ont.

CHAIRS, and COUCHES, Turkish.

Imperial Furniture Co., Toronto, Ont.
Waterloo Furniture Co., Ltd., Waterloo, Ont.

CHALCEDONY, an imperfectly crystalline quartz, of which agate, carnelian, onyx, &c., are varieties. The name is more specially applied to whitish, bluish, or brownish stones with a wavy lustre. It is found in India, Siberia, Transylvania, and on the Rhine.

CHALK, a soft variety of limestone used when burned for the preparation of mortar. Mixed with vegetable coloring matter, it forms the crayons of artists. Vienna white is purified chalk. Black chalk is a kind of clay containing carbon. Red chalk is a red clay impregnated with oxide of iron. French chalk is soapstone.

CHAMOIS LEATHER, originally made from chamois skins, and often called shammy leather. Now it is made from the skins of other animals, and is the same as buff leather. **(See BUCKSKIN.)**

CHAMPAGNE.—Sparkling wines are made from the best wine carefully cleared and bottled with cane sugar to cause fermentation. When the bottle is uncorked the carbonic acid, released from pressure, rises to the surface in bubbles. Some inferior imitations are made by aerating the wine artificially with carbonic acid. It is said that sparkling wine was first made in the abbey of Hautvillers, near Epernay, in 1670. The manufacture of champagne, the best sparkling wine, is now carried on in the department of Marne—Rheims, Epernay, and Chalons being the chief centres. The production now averages about 9,840,000 gals. a year. Sparkling wines are also made at Saumur and Limoux, and, to a small extent, in Burgundy; also on the Rhine and Moselle, at Asti in North Italy, and in the United States.. **(See WINES.)**

CHAMPAGNES.

Hamilton, J. S., & Co., Brantford, Ont.

CHANDELIERS, (See also Electric Fixtures, and Gas Fixtures).

Chadwick Brass Co., Ltd., The, Hamilton, Ont.
Farquhar Bros., Ltd., Halifax, N.S.
Garth Co., The, Montreal, Que.
Marshall-Davis, Ltd., Dunnville, Ont.
Mitchell, The Robt., Co., Ltd., Montreal, Que.
Reeder Electrical & Mfg. Co., Ltd., Toronto, Ont.

CHANKS, shells of several species of Turbinella, obtained chiefly from the coasts of Southern India and Ceylon, and sold in India as female ornaments.

CHANNELS. (See Steel).

CHARCOAL.—Wood charcoal is made by burning wood in a heap or closed cylinders in which the supply of air is limited. Most of the hydrogen and oxygen and nitrogen contained in the wood are driven off, and the residue consists of a very large proportion of carbon. The greater the heat the larger is the percentage, but the total weight of the product also diminishes. Charcoal is used as a fuel, as a disinfectant, for electrodes, &c. Animal charcoal is obtained from bones and ivory by heating these substances in a closed vessel. Bone black and ivory black are well-known pigments.

CHARCOAL.

Dominion Chemical Co., Ltd., Sherbrooke, Que.
Hamilton Facing Mill Co., Ltd., Hamilton, Ont.
Standard Chemical, Iron & Lumber Co., of Canada, Limited, Toronto, Ont.

CHARQUI. (See JERKED BEEF.)

CHARTS.

Globe Furniture Co., Ltd., The, Waterloo, Ont.

CHAULMUGRA, the seeds of the chaulmugra tree of India, are used in India as a medicine for skin diseases, and in Europe for consumption. The oil expressed from the seeds is applied externally.

CHAY ROOT, the root of Oldenlandia umbellata, a herb of the order Cinchonaceæ. It is grown in Java and on the Coromandel coast, and yields a red dye.

CHEDDITE.

Energite Explosives Co., Limited, Montreal, Que.

CHEESE may be divided into two kinds, namely, soft and hard. To the former belong cream cheeses and many other fancy cheeses manufactured in Europe such as Camembert, Brie, Neuchatel, etc. Hard cheeses are the object of considerable trade. Cheddar is the principal kind and is exported in large quantities from Canada and United States. Holland exports Goulda and Edam cheeses; France Gruyere and Roquefort; Switzerland chiefly Gruyere and Italy Gorgonzola and Parmesan. The exports of cheese from Canada in the year ending March 31st, 1914, were $18,948,511. The importation of fancy European cheese in the same year was $299,223.

CHEESE.

Acadia Canning & Creamery Co., Ltd., Kingston Station, N.S.
Duff, John, & Son, Ltd., Hamilton, Ont.
De Laval Dairy Supply Co., Ltd., Peterborough, Ont.
Flavelles, Ltd., Lindsay, Ont.
Gunns, Ltd., Toronto, Ont.
Hygienic Fresh Milk Co., Ltd., Antigonish, N.S.

Ingersoll Packing Co., Ltd., Ingersoll, Ont.
MacLaren Imperial Cheese Co., Ltd., Toronto, Ont.
Ross, Thomas & Sons, Hawkesbury, Ont.
St. Thomas Packing Co., Ltd., St. Thomas, Ont.
Stratford Dairy Co., Ltd., Stratford, Ont.
Swift Canadian Co., Ltd., Winnipeg, Man.
Whyte Packing Co., Ltd., The, Stratford, Ont.
Wyman Bros., Chute a Blondeau, Ont.

CHEESE, Potted.

City Dairy Co., Ltd., Toronto, Ont.
MacLaren Imperial Cheese Co., Ltd., Toronto, Ont.

CHEESECLOTH.

Dominion Textile Co., Ltd., Montreal, Que.

CHEMICALS.

Alpha Chemical Co., Ltd., The, Berlin, Ont.
Atteaux Dyestuff & Chemical Co., Ltd., Toronto, Ont.
Cowan, John & Co., Ltd., Montreal, Que.
Davis & Lawrence Co., Ltd., Montreal, Que.
Electrical Reduction Co., Ltd., Buckingham, Que.
Enterprise Chemical Co., Ltd., Montreal, Que.
General Chemical Co., Sulphide, Ont.
General Chemical Produce & Explosive Co., Montreal, Que.
Grasselli Chemical Co., Ltd., Hamilton, Ont.
Lyman Bros. & Co., Ltd., Toronto, Ont.
Merck & Co., Montreal.
Metal Chemicals, Ltd., Welland, Ont.
Miller, Guitford C., Middleton, N.S.
Moyes Chemical Co., Ltd., Toronto, Ont.
National Drug & Chemical Co., of Canada, Ltd., Montreal, Que.
Nichols Chemical Co., Ltd., The, Montreal, Que.
Paine, The, J. B. Co., Ltd., Toronto, Ont.
Robin & Co., Montreal, Que.
Shuttleworth, The, E. B. Chemical Co., Ltd., Toronto, Ont.
Stuart & Foster, Ltd., Toronto, Ont.
Taylor, John F., Pharmacal Co., Ltd., Toronto, Ont.
Vera Chemical Co. of Canada, Ltd., Burlington, Ont.
Victoria Chemical Co., Ltd., Victoria, B.C.
Walsh Chemical Compounding Co., Hamilton, Ont.
Wampole, Henry K. & Co., Ltd., Perth, Ont.
Waterbury Chemical Co., Ltd., Toronto, Ont.
Wingate Chemical Co., Ltd., Montreal, Que.

CHERRY.—The fruit of cherry, a subgenus of prunes, is cultivated and is an article of commerce. It is eaten as a dessert fruit and is extensively used in the making of liquors. An oil is obtained from the kernels which may be substituted for oil of almonds. The wood of the bird cherry and of other closely allied, is esteemed for cabinet work. One species possessing an agreeable odour is manufactured into pipe stems, snuff boxes, etc. In Canada the wood of the black cherry is the only specie of cherry used commercially. The wood is heavy, hard and strong with a fine straight grain and close texture. It splits easily, takes a fine polish and keeps its shape well. There are still a few trees left in farmers' wood lots that occasionally find their way to the market through custom sawmills. It is highly praised for interior decoration of cars and for office desks and other furniture. (See **WOOD**.)

CHESTS, Aromatic Cedar.

Czerwinski Box Co., Ltd., Winnipeg, Man.
Keenan Woodenware Mfg. Co., Ltd., Owen Sound, Ont.

THE CHESTNUT is an important furniture wood, largely imported into Canada from the United States. The wood has a very attractive grain, and a beautiful figure. It is used largely for veneer core, as it holds glue well, and in this way largely enters into the manufacture of pianos, veneered furniture, and doors, coffins, and interior trimmings. The native tree grows only in Southern Ontario. (See **WOOD**.)

CHESNUTS, or Chestnuts. The kernel of the chestnut, is an important article of food in Southern Europe. The fruits of C. Americana and C. argentea, a Java species, are also eaten, Chestnuts are exported from Naples, Bordeaux, and Cadiz. The wood is used by coopers and the bark by tanners.

CHIANTI, a red Italian wine, grown on the Chianti hills, in the district of Siena. The best is produced at Brolio.

CHICA, a dye-stuff obtained from the leaves of Bignonia chica, a climbing plant that grows on the banks of the Cassiquiare and Orinoco.

CHICK PEA, a vetch growing in Mediterranean countries, and the East and Spanish America. The peas are eaten by man, and the stems and leaves are given to animals. Large quantities are exported from India under the name gram, which, however, includes other kinds of pulse. In south Germany chick peas are cultivated as a substitute for coffee.

CHICLE, a gum obtained from the trunk of Achras sapota (sapodilla plum). About 1,260 tons are collected annually in the southern states of Mexico, a great part of which is sent to the United States, where it is chewed.

CHICORY, or Succory, a plant of the order Compositæ. The leaves are eaten as salad, and the roots are used as a substitute for coffee or to color and flavor coffee, and for this purpose the plant is cultivated on the continent of Europe and in California.

CHIFFONIERS.

Beach Furniture Co., The, Cornwall, Ont.
Berlin Furniture Co., Ltd., Berlin, Ont.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Crown Furniture Co., Preston, Ont.
Hepworth Mfg. Co., Ltd., The, Hepworth, Ont.
Hespeler Furniture Co., Ltd., Hespeler, Ont.
Malcolm & Souter Furniture Co., Ltd., Hamilton, Ont.
Meaford Mfg. Co., Ltd., Meaford, Ont.
St. Lawrence Furniture Co., Riviere du Loup, Que.
Spiesz Furniture, Ltd., The, Hanover, Ont.
Stratford Chair Co., Stratford, Ont.
Toronto Furniture Co., Ltd., Toronto, Ont.
Victoriaville Furniture Co., Victoriaville, Que.
Windsor Furniture Co., Ltd., Windsor, N.S.

CHILLIES. (See **CAPSICUMS**.)

CHIMNEY TOPS, Metal.

Metal Shingle & Siding Co., Ltd., Preston, Ont.
Metallic Roofing Co., of Canada, Ltd., The, Toronto, Ont.
Pedlar People, Ltd., Oshawa, Ont.
Steel Trough & Machine Co., Ltd., The, Tweed, Ont.

CHIMNEY TOPS, Salt Glazed.

Dominion Sewer Pipe Co., Ltd., Swansea, Ont.
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Medicine Hat Concrete Products Products Co., Ltd., Medicine Hat, Alta.
Ontario Sewer Pipe Co., Ltd., The, Mimico, Ont.
Standard Clay Products, Ltd., St. John's, Que.
Vitrolite Construction Co. of Manitoba, Winnipeg, Man.

CHIMNEYS, Lamp and Lantern.

Dominion Glass Co., Ltd., Montreal, Que., Toronto, Ont., and Wallaceburg, Ont.
Jefferson Glass Co., Ltd., Toronto, Ont.

CHINA CLAY. (See KAOLIN.)

CHINA CLAY.

Canadian China Clay Co., Ltd., Montreal, Que.

CHINA GRASS. (See GRASS CLOTH.)

CHINA ROOT. (See SARSAPARILLA.)

CHINCHILLA, a South American rodent with a soft grey fur. It occurs on the Andes of Peru and Chile at a high elevation.

CHINESE TALLOW. (See TALLOW TREE.)

CHINESE WAX, a hard wax produced on the ash tree by the pelu, belonging to the same genus as the lac insect. It is used in China for candles and for sizing paper and textiles.

CHINESE WHITE, white oxide of zinc, used as a pigment.

CHINTZ, a highly glazed calico printed in several colors.

CHIP, or Brazilian Grass, strips of the leaves of a dwarf palm used for the manufacture of hats and bonnets. Cuba exports a considerable quantity.

CHIPPERS, Pulp-wood.

Hay, The Peter, Knife Co., Ltd., Galt, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

CHIPS, Poker.

Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.

CHIRATA, or Chiretta, an intensely bitter plant indigenous in the North of India, where it is used as a tonic and febrifuge. In Europe it is used chiefly in the manufacture of bitters.

CHISELS.

Fowler, Josiah, Co., Ltd., The, St. John, N.B.
Gilmour Bros. & Co., Montreal, Que.
Hay, The Peter, Knife Co., Ltd., Galt, Ont.
Hills, Allan, Edge Tool Co., Ltd., Galt, Ont.
Roxton Tool & Mill Co., Ltd., Roxton Pond, Que.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Whitman & Barnes, Mfg. Co., The, St. Catharines, Ont.

CHITTAGONG WOOD, the wood of a tree of the Cedrelaceæ order, which is used in India by cabinet-makers. Other Indian woods are often called by this name.

CHLORAL, prepared by the continued action of chlorine on alcohol. It is used in medicine as a sedative and hypnotic, and is prescribed in the forms of hydrate, chloralamide, &c.

CHLORATE OF POTASH. (See POTASH.)

CHLORIDE OF LIME. (See BLEACHING POWDER.)

CHLORIDE OF LIME.

Alpha Chemical Co., Ltd., The, Berlin, Ont.;
Canadian Alkali Co., Ltd., Windsor, Ont.
Paine, J. B., Co., Ltd., Toronto, Ont.

CHLOROFORM, the well-known anæsthetic, prepared by acting on certain alcohols with bleaching powder, or by the action of chlorine on marsh gas.

CHOCOLATE, cocoa seeds ground into paste, sweetened and flavored, generally with vanilla. It is used as a beverage and as a sweetmeat. **(See COCOA.)**

CHOCOLATES.

Aetna Biscuit Co., The, Montreal, Que.
Baker, Walter & Co., Ltd., Montreal, Que.
Cowan Co., Ltd., The, Toronto, Ont.
Jersey Cream Factories, Ltd., The, Hamilton, Ont.
Kootenay Jam Co., Ltd., The, Mission City, B.C.
Lowney, The Walter M., Co., of Canada, Ltd., Montreal, Que.
McGregor Harris Co., Ltd., Toronto, Ont.
Mooney Biscuit & Candy Co., Ltd., Montreal, Que.
Moirs, Ltd., Halifax, N.S.
National Biscuit & Confection Co., Ltd., Vancouver, B.C.
Neilson, Wm., Ltd., Toronto, Ont.
Patterson Candy Co., Toronto, Ont.
Ramsays, Ltd., Montreal, Que.
Robertson Bros., Ltd., Toronto, Ont.
Stearns, Frederick & Co., of Canada, Ltd., Windsor, Ont.
Viau & Frere, Montreal, Que.
Watson, Robert, Co., Toronto, Ont.
Webb, The Harry Co., Ltd., Toronto, Ont.
Willards Chocolates, Ltd., Toronto, Ont.
Yeaton, Geo. H. & Sons, Ltd., Hantsport, N.S.

CHOPPERS, Grain.

Stratford Mill Building Co., Ltd., Stratford, Ont.
Vessot, S., & Co., Joliette, Que.

CHOPPERS, Ice.

McLennan Foundry & Machine Works, Ltd., Campbellton, N.B.

CHOPPERS, Meat (Hand and Electric).

Decbul Tools, Ltd., Montreal, Que.
Fisher Electric & Mfg. Co., Ltd., Toronto, Ont.
Maxwell, David & Sons, St. Mary's, Ont.
Wilson, C., & Son, Toronto, Ont.

CHOW-CHOW, Chinese name for mixed pickles, preserves, &c.

CHROMITE.

The Black Lake Asbestos & Chrome Black Lake, Que.

CHROMIUM.—This metal forms several combinations employed in arts and industries, the most important being a ferrochromium alloy, which renders armour-plates hard and tough. The most common ore is chrome ironstone, occurring in America, Hungary, Sweden, Turkey, &c. Chromate of lead is also mined, and is the chrome yellow of artists. Boiled with lime it yields a red dye for calico. Chromic oxide is extensively used for dyeing wallpapers instead of the dangerous arsenical green dyes, and chromic acid and bichromate of potash are used in bleaching and dyeing.

CHROMIUM.

Goldschmidt-Thermit Co., Toronto, Ont.

CHUCKS, Drill.

Decbul Tools, Ltd., Montreal, Que.
Hamilton Tool Co., Ltd., The, Hamilton, Ont.

CHUCKS, Lathe.

Ker & Goodwin, Brantford, Ont.

CHURNS, Barrel (Hand and Power).

Beatty Bros., Ltd., Fergus, Ont.
Burrell, D. H., & Co., Brockville, Ont.
Butcher, F. E., St. Mary's, Ont.
Cummer-Dowswell, Ltd., Hamilton, Ont.
De Laval Dairy Supply Co., Ltd., Peterborough, Ont.
Eureka Planter Co., Ltd., The, Woodstock, Ont.
Maxwell, David, & Sons, St. Mary's, Ont.
Richardson, C., & Co., St. Mary's, Ont.

CHURNS, Crockery.

Belleville Pottery Co., Belleville, Ont.

CIDER, the fermented juice of apples, manufactured in parts of England, the north of France, America, and elsewhere. It contains 4 to 10 per cent. of pure alcohol.

CIDER.

Allen S., Ltd., Norwich, Ont.
Annapolis Valley Vinegar Co., Bridgetown, N.S.
Belleville Cider & Vinegar Co., Ltd., Belleville, Ont.
Bigelow & Hood, Truro, N.S.
Biggs Fruit & Produce Co., Ltd., The, Burlington, Ont.
Brandon Brewing Co., Ltd., Brandon, Man.
British Canadian Canners, Ltd., Hamilton, Ont.
Christin J. & Co., Inc., Montreal, Que.
Drake, Francis, New Glasgow, N.S.
Empire Brewing Co., Ltd., Brandon, Man.
Golden Lion Brewing Co., Ltd., Prince Albert, Sask.
Graves, M. W. & Co., Bridgetown, N.S.
Havelock Bottling Co., Ltd., Sydney, N.S.
Millar, Robert, Montreal, Que.
Stouffville Cider & Vinegar Co., Ltd., The, Stouffville, Ont.
Taylor & Pringle Co., Ltd., Owen Sound, Ont.
Thousand Islands Mineral Water Co., Ltd., Brockville, Ont.
Timmons, M. & Son, Quebec, Que.
Whitby Fruit & Vinegar Co., Whitby, Ont.
Wilson, Lyte, Badgerow Co., Ltd., The, Toronto, Ont.

CIGARS and CIGARETTES. (See TOBACCO.)

CIGAR BINDERS and FILLERS, Native Leaf.

Payne, J. Bruce, Ltd., Granby, Que.

CIGAR POCKETS, Wax-lined.

Paper Goods Co., Ltd., The, Toronto, Ont.

CIGARETTES, Canadian.

Dominion Tobacco Co., Montreal, Que.
Federal Cigarette & Tobacco Co., Montreal, Que.
Fortier, J. M., Ltd., Montreal, Que.
Landau & Cormack, Ltd., Montreal, Que.
Ledoux, The H. E. Co., Ltd., Winnipeg, Man.
Rock City Tobacco Co., Ltd., The, Quebec, Que.
Tuckett Tobacco, Ltd., The, Hamilton, Ont.

CIGARETTES, Egyptian.

Melachrino, M., & Co., Ltd., Montreal, Que.

CIGARETTES, Havana.

Fortier, J. M., Ltd., Montreal, Que.

CIGARETTES, Turkish.

Cairo Cigarette Co., Montreal, Que.
Carreras & Marcianus of Canada, Ltd., Montreal, Que.
Fortier, J.M., Ltd., Montreal, Que.
Landau & Cormack, Ltd., Montreal, Que.
Morris, Phillip, & Co., Ltd., Montreal, Que.

CIGARETTES, Virginia.

Benson & Hedges, Ltd., Montreal, Que.
Carreras & Marcianus of Canada, Ltd., Montreal, Que.
Fortier, J.M., Ltd., Montreal, Que.
Hawkins, C. & E., Ltd., Montreal, Que.
Imperial Tobacco Co., of Canada, Ltd., Montreal, Que.
Landau & Cormack, Ltd., Montreal, Que.
Morris, Phillip, & Co., Montreal, Que.

CIGARS, Canadian.

Clubmen's Manufacturing Tobacco Co., Ltd., Montreal, Que.
Harris, Harkness & Co., Montreal, Que.
Hirsch, J. & Sons, Ltd., Montreal, Que.
Ledoux, H. E. Co., Ltd., Winnipeg, Man.
Lee, Thomas, Winnipeg, Man.
Lewis, L. & Co., Montreal, Que.
Little Cigars Co., Montreal, Que.
McNee, John & Sons, London, Ont.
O'Kelly, James, Pembroke, Ont.
Payne, J. Bruce, Ltd., Granby, Que.
Rattray, J. & Co., Ltd., Montreal, Que.
Rock City Tobacco Co., Ltd., The, Quebec, Que.
St. Lawrence Tobacco & Cigar Co., Ltd., St. Laurent, Que.
Simon, H. & Sons, Ltd., Montreal, Que.
Tuckett Tobacco Co., Ltd., The, Hamilton, Ont.
Webster, W. R. & Co., Ltd., Sherbrooke, Que.
Wigle, Darius, Kingsville, Ont.
Youngheart, Ed. & Co., Montreal, Que.

CIGARS, Clear Hanavas.

Barry, Henri D., Quebec, Que.
Berlin Havana Cigar Co., Berlin, Ont.
Cusson, E. N. & Co., Montreal, Que.
Davis, S. & Sons, Montreal, Que.
Fair, T. J. & Co., Ltd., Brantford, Ont.
Fortier, J. M., Ltd., Montreal, Que.
Gaste, Jose, Co., London, Ont.
Granda Jose, Ltd., Montreal, Que.
Granda, Hermanos Y Ca, Montreal, Que.
Grothe, L. O., & Co., Montreal, Que.
Havana Cigar Co., Ltd., The, London, Ont.
Hilda Cigar Co., Ltd., Hamilton, Ont.
Isaacs, A. & I., St. John, N.B.
Jacobs, H. & Co., Montreal, Que.
McGowan, Geo. A., Cigar Mfg. Co., The, Kingston, Ont.
McLeod, Nolan & Co., London, Ont.
Milligan, George, Toronto, Ont.
Poirier Bros., Montreal, Que.
Sherbrooke Cigar Co., The, Sherbrooke, Que.

CIGARS, Seed and Havana.

Barry, Henri D., Quebec, Que.
Brener Bros., London, Ont.
Bryan, Geo. F. Mfg. Co., Ltd., Winnipeg, Man.
Clubmen Mfg. Tobacco Co., Ltd., Montreal, Que.
Edmonton Cigar Factory, Edmonton, Alta.
Fair, T. J. & Co., Ltd. ,Brantford, Ont.
Forest V., Montreal, Que.
Fortier, J. M., Ltd., Montreal, Que.
Goulet Freres, Montreal, Que.
Grothe, L. O. & Co., Montreal, Que.
Hadd, L. N., Montreal, Que.
Hart, A. S., St. John, N.B.
Havana Cigar Co., Ltd., The, London, Ont.

Hilda Cigar Co., Ltd., Hamilton, Ont.
Hirsch, J. & Sons, Ltd., Montreal, Que.
Honsinger, B. F., St. Thomas, Ont.
Hoolahan, A. & Co., Montreal, Que.
Jacobs, H. & Co., Montreal, Que.
Keystone Cigar Co., Winnipeg, Man.
Kurtz & Co., Vancouver, B.C.
Line, McDonald & Co., London, Ont.
Mainland Cigar Factory, Vancouver, B.C.
Mayer, Emilien, Montreal, Que.
McGowan, George A., Cigar Mfg. Co., Ltd., The, Kingston, Ont.
McLeod, Nolan & Co., London, Ont.
McNee, John, & Sons, London, Ont.
Milligan, George, Toronto, Ont.
Morena Cigar Co., Ltd., Victoria, B.C.
O'Brien, Fehner & Co., Sault Ste. Marie, Ont.
Province Cigar Co., Victoria, B.C.
St. Lawrence Tobacco & Cigar Co., Ltd., St. Laurent, Que.
Schraeder Cigar Co., Hamilton, Ont.
Andrew Wilson & Co., Toronto, Ont.
Winnipeg Cigar Co., Winnipeg, Man.
Youngheart, Ed., & Co., Montreal, Que.

CINCHONA, an important genus of trees of the order Rubiaceæ, yielding a valuable medicinal bark known as Peruvian. There are several species, of which the best known come from Ecuador and Peru. The tree has been introduced into India, Java, Queensland, Trinidad, and Jamaica. It prefers a moist climate and a mean temperature of 50 deg. to 70 deg. F., and therefore thrives in the Andes at a mean altitude of about 6,000 feet. Five to six per cent. of alkaloids are extracted from good bark, half of which is quinine, a valuable febrifuge and tonic, prescribed usually in the form of the sulphate, which is popularly known as quinine. **(See also QUININE.)**

CINNABAR. (See MERCURY.)

CINNAMON, the aromatic bark of several species of the genus Cinnamomum of the order Lauraceæ. The best comes from Ceylon. Oil of cinnamon, extracted from the leaves and waste bark, is commonly known in commerce as clove oil. Cassia is an inferior quality. Cassia "flowers," the unripe fruit, are also exported. The bark is exported in the form of quills (strips of bark which roll up in drying) and chips. Ceylon is the chief source of true cinnamon; Java exports about 1,350,000 lbs. of cassia, and the Straits Settlements some 130,000 lbs. of cinnamon and cassia. **(See also CANELLA.)**

CISTERNS, Galvanized Steel.

Steel Trough & Machine Co., Ltd., The, Tweed, Ont.

CITRON, a fruit akin to the lemon. The most valuable part is the thick aromatic peel which is candied in Italy and exported. Citrons are also shipped from Greece. Oil of citron is used by perfumers. Citric acid occurs in limes, citrons, and other acid fruits. Chalk is added to the juice, forming citrate of lime, which is then decomposed by sulphuric acid. Citric acid is used by dyers, and the citrates of magnesia, ammonia, iron, and quinine are well-known medicines.

CITRONELLA OIL. (See GRASS OIL.)

CIVET, a genus of cat-like carnivores. There are several species inhabiting Africa, India, and the Eastern Archipelago. The strong perfume called civet is obtained from two perineal glands, and is exported chiefly from Abyssinia and Java.

CLAMPS, Bench.

Smart, The James Mfg. Co., Ltd., Brockville, Ont.

CLAMPS, Cabinet Carpenters'.

Canada Machinery Corporation, Ltd., Galt, Ont.
Cowan & Co., of Galt, Ltd., Galt, Ont.
National Machinery & Supply Co., Ltd., Hamilton, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.

CLAM, bivalves of the genus Chama and allied varieties which are much esteemed as food.

CLAMS, Canned.

Clark, J. Sutton, Ltd., St. George, N.B.
McDonald Packing Co., Fairhaven, N.B.

CLAPBOARDS.

Baldwin, W. K., Baldwin's Mills, Que.
Brompton Pulp & Paper Co., The, East Angus, Que.
Brunette Saw Mill Co., Ltd., New Westminster, B.C.
Calhoun Lumber Co., Calhoun, N.B.
Charlemagne & Lac Ouareau Lumber Co., Montreal, Que.
Edwards, W. C. & Co., Ltd., Ottawa, Ont.
Georgian Bay Shook Mills, Ltd., Ottawa, Ont.
Laird Bros., Dresden, Ont.
Lea, Paul Co., Ltd., Moncton, N.B.
Metis Lumber Co., The, Price, Que.
Nicolet Falls Pulp & Lumber Co., Nicolet Falls, Que.
Parker, J. B., Dixville, Que.
Rathbun Co., The, Deseronto, Ont.
Riordon Pulp & Paper Co., Ltd., Montreal, Que.
Stetson, Cutler & Co., St. John, N.B.
Westport Woodworking Co., Ltd., Westport, Que.
Williamson & Crombie, Kingsbury, Que.

CLARET, a name given in English to wines of the Bordelais, or Bordeaux district in France, the department of La Gironde. Chateau Lafitte, Margaux, and Chateau Latour are some of the best kinds.

CLASPS, Corset.

De Long Hook &Eye Co., of Canada, Ltd., St. Mary's, Ont.
Dominion Corset Co., Quebec, Que.
St. Lawrence Steel & Wire Co., Ltd., Gananoque, Ont.

CLAY.—The clays most used in industries are fire-clay and kaolin; potters' clay, somewhat less pure; sculptors' clay, a fine potters' clay mixed with sand; and fire-clay. A fire-resisting clay contains a large percentage of silica and alumina and small quantities of alkaline substances and oxide of iron. It occurs chiefly in the coal measures, and is made into bricks and slabs.

CLEANERS, Boiler Tube.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Steam Boiler Equipment Co., Ltd., Toronto, Ont.
Hamilton Engine Packing Co., Hamilton, Ont.
Morrison, The James, Brass Manufacturing Co., Ltd., Toronto, Ont.

CLEANERS, Drain.

Chatham Malleable & Steel Mfg. Co., Chatham, Ont.
Jones, The D. F., Mfg. Co., Ltd., Gananoque, Ont.

CLEANERS, Vacuum, Hand and Electric.

Acme Vacuum Cleaner Co., Ltd., Montreal, Que.
Fisher Electric & Mfg. Co., Ltd., Toronto, Ont.
Invincible Renovator Mfg. Co., Ltd., Toronto, Ont.
King, Geo. H. & Co., Ltd., Woodstock, Ont.
Markwell Mfg. Co., Ltd., Winnipeg, Man.
Onward Mfg. Co., The, Berlin, Ont.
Ottawa Vacuum Cleaner Mfg. Co., Ltd., Ottawa, Ont.
Pollock Mfg. Co., Ltd., Berlin, Ont.
Zimmer Vacuum Machine Co., Ltd., Toronto, Ont.

CLINKERS, hard burnt bricks, manufactured chiefly in Holland. Also furnace slag, consisting principally of oxide of iron.

CLOAKS, Suits and Costumes, Ladies'.

Bishinsky Bros., Montreal, Que.
Boulter, The H. C. Co., Ltd., Toronto, Ont.
Brandon Fur & Clothing Mfg. Co., Brandon, Man.
Canada Cloak Co., Ltd., Toronto, Ont.
Claman Waterproof Garment Co., Ltd., Montreal, Que.
Consolidated Cloak Co., Ltd., Toronto, Ont.
Continental Costume Co., Ltd., Toronto, Ont.
DeLeon Costume Co., Montreal, Que.
Dominion Cloak Mfg. Co., Montreal, Que.
Dupuis Freres, Ltd., Montreal, Que.
Eagle Skirt & Cloak Mfg. Co., Montreal, Que.
Eaton, The T. Co., Ltd., Toronto, Ont.
Eclipse Cloak Co., Montreal, Que.
Economic Clothing Co., Ltd., The, Quebec, Que.
Fairweathers, Ltd., Toronto, Ont.
Felsen-Brennan Co., Montreal, Que.
Goldhammer Cloak Co., Ltd., The, Toronto, Ont.
Greenberg, Smith Co., The, Montreal, Que.
Hart Mfg. Co., The, Montreal, Que.
Helena Costume Co., Ltd., London, Ont.
Ideal Women's Wear, Ltd., Toronto, Ont.
"Imperial, The," Montreal, Que.
Laurel Mfg. Co., The, Toronto, Ont.
Leon Costume Co., Winnipeg, Man.
McKinnon, S. F. & Co., Ltd., Toronto, Ont.
Medine, S. & Co., Montreal, Que.
Montreal Skirt & Cloak Mfg. Co., Montreal, Que
Murray-Kay, Ltd., Toronto, Ont.
Northway, John, & Son, Ltd., Toronto, Ont.
Novi-Modi Costume Co., Ltd., Toronto, Ont.
Ontario Cloak Co., The, Toronto, Ont.
Opera Silk Waist Co., Montreal, Que.
Patrician Cloak & Suit Co., The, Toronto, Ont.
Queen Dress & Waist Co., Ltd., Montreal, Que.
Rea, A. E., & Co., Ltd., Toronto, Ont.
Regal Mfg. Co., Montreal, Que.
Regina Cloak Mfg. Co., Montreal, Que.
Regent Cloak Co., Montreal, Que.
Ross, The C., Co., of Ottawa, Ltd., Ottawa, Ont
Rother, Harry, Montreal, Que.
Solin Bros., Montreal, Que.
Sommer, A. & Co., Montreal, Que.
Stobart, Sons & Co., Ltd., Winnipeg, Man.
Stylecraft Mfg. Co., The, Montreal, Que.
Tackaberry, Ltd., Toronto, Ont.
Thompson Mfg. Co., Ltd., Toronto, Ont.
Victor Mfg. Co., The, Quebec, Que.
Wilson & Waldman Costume Co., The, Toronto, Ont.

CLOCKS. (See **WATCHES.**)

CLOCKS, Electric.

Wood, W. A., Montreal, Que.

CLOCKS, Engineers'.

Morrison, The James, Brass Mfg. Co., Ltd., Toronto, Ont.

CLOCKS, Grandfathers'.

Berlin Furniture Co., Ltd., Berlin, Ont.

CLOCKS, Mission Style.

Mundell, John C., & Co., Elora, Ont.

CLOCKS AND CLOCK MOVEMENTS.

Berlin Racycle Mfg. Co., Ltd., Berlin, Ont.

CLOSETS, Range.

Amherst Foundry Co., Ltd., Amherst, N.S.
Standard Ideal Co., Ltd., Port Hope, Ont.
Toronto Hardware Mfg. Co., The, Toronto, Ont.

CLOSETS, Sanitary.

B. O. T. Mfg. Co., Ltd., The, Toronto, Ont.
Dominion Sanitary Pottery Co., St. John's, Que.
Robertson, The James Co., Ltd., Toronto, Ont.
Standard Ideal Co., Ltd., Port Hope, Ont.
Standard Sanitary Mfg. Co., Ltd., Toronto, Ont.
United Brass & Lead, Ltd., Toronto, Ont.

CLOSETS, Sanitary, Chemical.

National Mfg. Co., Ltd., Ottawa, Ont.
Parker-Whyte, Ltd., Winnipeg, Man.
Steel Trough & Machine Co., Ltd., The, Tweed, Ont.

CLOTH, Beaver.

Auburn Woollen Co., Ltd., Peterborough, Ont.
Paton Mfg. Co., of Sherbrooke, Sherbrooke, Que.
Rosamond Woollen Co., Almonte, Ont.

CLOTH, Carriage.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.

CLOTH, Cheviot.

Caldwell, Boyd, & Co., Ltd., Lanark, Ont.
Harris & Co., Ltd., Rockwood, Ont.
Paton Mfg. Co., of Sherbrooke, Sherbrooke, Que.
Pattison, George, & Co., Preston, Ont.
Rosamond Woollen Co., Almonte, Ont.

CLOTH, Costume.

Dick, John, Ltd., Toronto, Ont.
Forbes, R., Co., Ltd., Hespeler, Ont.
Harris & Co., Ltd., Rockwood, Ont.
Magog Woollen Mills, Ltd., Sherbrooke, Que.
Oxford Mfg. Co., Ltd., Oxford, N.S.
Paton Mfg. Co., of Sherbrooke, Sherbrooke, Que.
Pattinson, George, & Co., Preston, Ont.
Slingsby Mfg. Co., Ltd., The, Brantford, Ont.
Taylor, The T. H. Co., Ltd., Chatham, Ont.
Trent Valley Woollen Mfg. Co., Ltd., The, Campbellford, Ont.
Watchorn & Co., Ltd., Merrickville, Ont.

CLOTH, Frieze.

Dick, John, Ltd., Toronto, Ont.
Harris & Co., Ltd., Rockwood, Ont.
Hewson Pure Wool Textiles, Ltd., Amherst, N.S.
Magog Woollen Mills, Ltd., Sherbrooke, Que.
Paton Mfg. Co., of Sherbrooke, Sherbrooke, Que.
Pattinson, George & Co., Preston, Ont.
Watchorn & Co., Ltd., Merrickville, Ont.

CLOTH, Hair.

Canada Hair Cloth Co., St. Catharines, Ont.
Dominion Hair Cloth Factory, St. Catharines, Ont.

CLOTH, Homespun.

Caldwell, Boyd & Co., Ltd., Lanark, Ont.
Dick, John, Ltd., Toronto, Ont.
Harris & Co., Ltd., Rockwood, Ont.
Hewson Pure Wool Textiles, Ltd., Amherst, N.S.
Magog Woollen Mills, Ltd., Sherbrooke, Que.
Oxford Mfg. Co., Ltd., Oxford, N.S.
Paton Mfg. Co. of Sherbrooke, Sherbrooke, Que.
Trent Valley Woollen Mfg. Co., Ltd., The, Campbellford, Ont.

CLOTH, Kersey.

Black, J. & G., Thurso, Que.
Dontigny, Philip, Arnprior, Ont.
Glen Woollen Mills, Ltd., The, Glen Williams, Ont.
Logan Bros., Ltd., Renfrew, Ont .
Paton Mfg. Co., of Sherbrooke, Sherbrooke, Que.
Slingsby Mfg. Co., Ltd., The, Brantford, Ont.
Watchorn & Co., Ltd., Merrickville, Ont.

CLOTH, Mackinaw.

Baruston Woollen Co., The, Way's Mills, Que.
Bird Woollen Mill Co., Ltd., Bracebridge, Ont.
Brown & Wigle Co., Ltd., Kingsville, Ont.
Colonial Knitting Co., Ltd., Guelph, Ont.
Glen Woollen Mills, Ltd., The, Glen Williams, Ont.
Hewson Pure Wool Textiles, Ltd., Amherst, N.S.
Magog Woollen Mills, Ltd., Sherbrooke, Que.
Mitchell Woollen Co., Ltd., Mitchell, Ont.
Slingsby Mfg. Co., Ltd., The, Brantford, Ont.
Standard Woollen Mills, Ltd., The, Toronto, Ont.
Taylor, The T. H., Co., Ltd., Chatham, Ont.

CLOTH, Melton Overcoating.

Auburn Woollen Co., Ltd., Peterborough, Ont.
Oxford Mfg. Co., Ltd., Oxford, N.S.
Paton Mfg. Co., of Sherbrooke, Sherbrooke, Que.
Pattison, George & Co., Preston, Ont.
Rosamond Woollen Co., Almonte, Ont.

CLOTH, Overcoating.

Oxford Mfg. Co., Ltd., Oxford, N.S.
Taylor, The T. H., Co., Ltd., Chatham, Ont.
Trent Valley Woollen Mfg. Co., Ltd., The, Campbellford, Ont.

CLOTH, Serge.

Forbes, R., Co., Ltd., Hespeler, Ont.
Paris Wincey Mills Co., Ltd., The, Paris, Ont.
Paton Mfg. Co., of Sherbrooke, Sherbrooke, Que.
Rosamond Woollen Co., Almonte, Ont.
Taydor, The T. H., Co., Ltd., Chatham, Ont.
Trent Valley Woollen Mfg. Co., Ltd., The, Campbellford, Ont.

CLOTH, Tweed.

Antigonish Woollen Mills, Antigonish, N.B.
Auburn Auburn Woollen Co., Ltd., Peterborough, Ont.
Baruston Woollen Co., The, Way's Mills, Que.
Bird Woollen Mill Co., Ltd., Bracebridge, Ont.
Black, J. & G., Thurso, Que.
Brown, John, Carleton Place, Ont.
Cantin et Fils, La Cie., Warwick, Que.
Chesley Woollen Mills Co., Chesley, Ont.
Childerhouse, John & Co., Eganville, Ont.
Coaticook Woollen Mill Co., Coaticook, Que.
Dick, John, Ltd., Toronto, Ont.
Dontigny, Philip, Arnprior, Ont.
Forbes, R. Co., Ltd., Hespeler, Ont.
Harris & Co., Ltd., Rockwood, Ont.
Hewson Pure Wool Textiles, Ltd., Amherst, N.S.
Logan Bros., Ltd., Renfrew, Ont.
Lott, William, Belleville, Ont.
Magog Woollen Mills, Ltd., Sherbrooke, Que.
Midnapore Woollen Mills, Ltd., Midnapore, Alta.
Mitchell Woollen Co., Ltd., Mitchell, Ont.
Murphy, Eugene, Mount Forest, Ont.
O'Hare & Sons, Midland, Ont.
Oxford Mfg. Co., Ltd., Oxford, N.S.
Paris Wincey Mills Co., Ltd., Paris, Ont.
Paton Mfg. Co., of Sherbrooke, Sherbrooke, Que.
Pattinson, George, & Co., Preston, Ont.
Penman's, Ltd., Paris, Ont.
Peter, William, Parry Sound, Ont.
Rosamond Woollen Co., Almonte, Ont.
Slingsby Mfg. Co., Ltd., The, Brantford, Ont.
Trent Valley Woollen Mfg. Co., Ltd., The, Campbellford, Ont.
Watchorn & Co., Ltd., Merrickville, Ont.

CLOTH, Venetian.

Auburn Woollen Co., Ltd., Peterborough, Ont.
Trent Valley Woollen Mfg. Co., Ltd., The, Campbellford, Ont.

CLOTH, Waterproof.

Gourock Ropework Export Co., Ltd., Montreal, Que.

CLOTH, Window Shade.

Daly & Morin, Montreal, Que.
Hayhoe, H. E., & Co., Toronto, Ont.

CLOTH, Wire. (See Wire Cloth).

CLOTH, Worsted.

Dick, John, Ltd., Toronto, Ont.
Forbes, R., Co., Ltd., Hesleper, Ont.
Humphrey, J. A., & Sons, Ltd., Moncton, N.B.
Paton Mfg. Co., of Sherbrooke, Sherbrooke, Que.
Rosamond Woollen Co., Almonte, Ont.
Trent Valley Woollen Mfg. Co., Ltd., The, Campbellford, Ont.

CLOTH INSERTION, Rubber.

Dunlop Tire & Rubber Goods Co., Ltd., Toronto, OOnt.

CLOTHES HORSES and BARS.

Berlin Woodenware Co., Berlin, Ont.
McFarlane Ladder Works, Toronto, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Schultz Bros. Co., Ltd., The, Brantford, Ont.
Taylor, Scott & Co., Ltd., Palmerston, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

CLOTHESPINS.

Cane, William, & Sons, Co., Ltd., The, Newmarket, Ont.
Danville Mfg. Co., Ltd., Danville, Que.
Escanaba Mfg. Co., Sutton, Que.
Thomas Bros., Ltd., St. Thomas, Ont.

CLOTHING, Athletic.

Hingston-Smith Arms Co., Ltd., Winnipeg, Man.
Union Overall Co., Winnipeg, Man.
Wilson, Harold A., Co., Ltd., Toronto, Ont.

CLOTHING, Automobile.

Colonial Knitting Co., Ltd., Guelph, Ont.
National Rubber Co. of Canada, Ltd., Montreal, Que.

CLOTHING, Boys'.

Amyot & Poirier, St. Hyacinthe, Que.
Berman Bros. & Co., Montreal, Que.
Blue, Walter & Co., Ltd., Sherbrooke, Que.
Dawson, John, Ltd., Toronto, Ont.
Dominion Clothing Co., Montreal, Que.
Eastern Pant Mfg. Co., Amherst, N.S.
Eaton, The T. Co., Ltd., Toronto, Ont.
Empire Clothing Mfg. Co., Toronto, Ont.
Fortier, Elz. & Frere, Quebec, Que.
Freedman Co., Ltd., The, Montreal, Que.
"Fugere," Ltd., Quebec, Que.
Gilchrist, C. M. & Co., Toronto, Ont.
Harris, M. & Son, Montreal, Que.
Hart, Samuel & Co., Montreal, Que.
Hoffman, T. & Co., Montreal, Que.
Inglis, W. J., Montreal, Que.
Jackson Mfg. Co., Clinton, Ont.
Johnston, W. R. & Co., Ltd., Toronto, Ont.
Kellert, H., & Son, Montreal, Que.
King Pants Mfg. Co., Montreal, Que.
Levinson, S., Son & Co., Montreal, Que.
MacKenzie, Ltd., Ottawa, Ont.
McComber & Cummings, Montreal, Que.
Merchants' Clothing Co., Montreal, Que.
Murray & Michaud, Montreal, Que.
National Clothing Co., Ltd., The, Montreal, Que.
Peck, John W. & Co., Ltd., Montreal, Que.
Randall & Johnston, Ltd., Toronto, Ont.
Regal Clothing Co., Montreal, Que.
Ruckenstein Bros., Montreal, Que.
St. Henry Overall Mfg. Co., Ltd., Montreal, Que.
Sanford, W. E. Mfg. Co., Ltd., Hamilton, Ont.
Scovil Bros., Ltd., St. John, N.B.
Shane, J. & Co., St. John, N.B.
Ship Bros., Montreal, Que.
Spark Bros., Ltd., Ottawa, Ont.

Standard Clothing Mfg. Co., Montreal, Que.
Union Clothing Mfg. Co., Montreal, Que.
Victoria Clothing Co., The, Victoriaville, Que.
Vineberg, H. & Co., Ltd., Montreal, Que.

CLOTHING, Card.

McLaren, The J. C., Belting Co., Ltd., Montreal, Que.

CLOTHING, Duck and Khaki.

Davidson, W. H., & Co., Brandon, Man.
Dufferin Shirt Co., Ltd., Toronto, Ont.
Livingstone Mfg. Co., The, Montreal, Que.
MacKenzie, Ltd., Ottawa, Ont.
Miller Mfg. Co., Ltd., Toronto, Ont.
Smart-Woods, Limited, Ottawa, Ont.
Western King Mfg. Co., Ltd., Winnipeg, Man.
Wilkins, Robt. C., Co., Ltd., Farnham, Que.

CLOTHING, Leather.

Clarke, A. R., & Co., Ltd., Toronto, Ont.
Hudson Bay Knitting Co., Montreal, Que.
Livingstone Mfg. Co., The, Montreal, Que.
MacKenzie, Ltd., Ottawa, Ont.
Smart-Woods, Ltd., Ottawa, Ont.

CLOTHING, Mackinaw.

Carss Mackinaw Clothing Co., Ltd., Orillia, Ont.
Clarke, A. R., & Co., Ltd., Toronto, Ont.
Colonial Knitting Co., Ltd., Guelph, Ont.
Great Western Garment Co., Ltd., The, Edmonton, Alta.
Hudson Bay Knitting Co., Montreal, Que.
Livingstone Mfg. Co., The, Montreal, Que.
MacKenzie, Ltd., Ottawa, Ont.
Turner, Beeton & Co., Ltd., Victoria, B.C.
Union Overall Co., Winnipeg, Man.

CLOTHING, Men's.

Amyot & Poirier, St. Hyacinthe, Que.
Berman Bros. & Co., Montreal, Que.
Blue, Walter & Co., Ltd., Sherbrooke, Que.
Campbell Mfg. Co., Ltd., The, Montreal, Que.
Canada Clothing Mfg. Co., Montreal, Que.
College Brand Clothing Co., Ltd., The, Montreal, Que.
Cook Bros. & Allen, Ltd., Toronto, Ont.
Christie Clothing Co., Ltd., Montreal, Que.
Clayton & Sons, Halifax, N.S.
Coppley, Noyes & Randall, Ltd., Hamilton, Ont.
Crown Tailoring Co., Ltd., Toronto, Ont.
Dawson, John, Ltd., Toronto, Ont.
Dominion Clothing Co., Montreal, Que.
Dupuis Freres, Ltd., Montreal, Que.
Eastern Pant Mfg. Co., Amherst, N.S.
Eaton, The T. Co., Ltd., Toronto, Ont.
Economic Clothing Co., Ltd., The, Quebec, Que.
Elkin, J. & Co., Ltd., Montreal, Que.
Empire Clothing Mfg. Co., Toronto, Ont.
Fashion Craft Mfgs., Ltd., Montreal, Que.
Finnie & Murray, Winnipeg, Man.
Fortier, Elz., & Frere, Quebec, Que.
Freedman Co., Ltd., The, Montreal, Que.
Friedman Bros., Montreal, Que.
"Fugere," Ltd., Quebec, Que.
Gardner, B. & Co., Ltd., Montreal, Que.
Gardner Clothing Mfg. Co., The, Quebec, Que.
Golden Crown Clothing Co., Montreal, Que.
Goldwater Bros., Montreal, Que.
Goodform Clothing Co., Montreal, Que.
Grafton & Co., Ltd., Dundas, Ont.
Grant, Holden & Graham, Ottawa, Ont.
Greene-Swift, Ltd., London, Ont.
Hachborn, E. G. & Co., Toronto, Ont.
Harris, M. & Son, Montreal, Que.
Hart, Samuel & Co., Montreal, Que.
Hobberlin, House of, Ltd., Toronto, Ont.
Hoffman & Co., Montreal, Que.
Imperial Clothing Mfg. Co., Toronto, Ont.
Inglis, W. J., Montreal, Que.
Johnston, W. R., & Co., Ltd., Toronto, Ont.
Kaplan, Samuelsohn & Co., Montreal, Que.
Kellert, H. & Sons, Montreal, Que.
King Pants Mfg. Co., Montreal, Que.
Leishman, W. H. & Co., Ltd., Toronto, Ont.
Levine Bros., Montreal, Que.
Levinson S., Son & Co., Montreal, Que.
Livingston Mfg. Co., Montreal.
Lowndes Co., Ltd., The, Toronto, Ont.
MacKenzie, Ltd., Ottawa, Ont.
Male Attire, Ltd., Montreal, Que.
McAlpine Richardson Co., Ltd., Toronto, Ont.
McComber & Cummings, Montreal, Que.
Merchants' Garment & Cap Co., Montreal, Que.
Morgan, Henry & Co., Ltd., Montreal, Que.
Murray & Michaud, Montreal, Que.
Murray-Kay, Ltd., Toronto, Ont.
National Clothing Co., Ltd., The, Montreal, Que.
Paragon Trousers Co., Montreal, Que.
Peck, John W. & Co., Ltd., Montreal, Que.
Punchard-Birrell Co., Toronto, Ont.
Randall & Johnston, Ltd., Toronto, Ont.
Regal Clothing Co., Montreal, Que.
Rex Tailoring Co., Toronto, Ont.
Ruckenstein Bros., Montreal, Que.
St. Henry Overall Mfg. Co., Montreal, Que.
Sanford, W. E. Mfg. Co., Ltd., Hamilton, Ont.
Scotland Woollen Mills Co., Ltd., The, Toronto, Ont.
Scovil Bros., Ltd., Ottawa, Ont.
Semi-Ready, Ltd., Montreal, Que.
Shane, J. & Co., St. John, N.B.
Ship Bros., Montreal, Que.
Sparks Bros., Ltd., Ottawa, Ont.
Standard Clothing Mfg. Co., Montreal, Que.
"Stilenfit" Clothing Co., The, Montreal, Que.
Thornton & Douglas, Ltd., Hamilton, Ont.
Tolton Mfg. Co., The, Stratford, Ont.
Two Macs, Ltd., The, Ottawa, Ont.
Union Clothing Mfg. Co., Montreal, Que.
Victoria Clothing Co., The, Victoriaville, Que.
Vineberg, H. & Co., Ltd., Montreal, Que.
Vineberg-Singer Co., Montreal, Que.

CLOTHING, Oiled.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Creaser, J. F., Co., Ltd., La Have, N.S.
Guelph Oiled Clothing Co., Ltd., Guelph, Ont.
Matte, T., Oiled Clothing Co., Ltd., Quebec, Que.
Tower Canadian, Ltd., Toronto, Ont.

CLOTHING, Rainproof and Waterproof.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Claman Waterproof Garment Co., Montreal, Que.
Columbus Rubber Co. of Montreal, Ltd., The, Montreal, Que.
Davis, H. E., & Co., Montreal, Que.
Empire Waterproof Clothing Co., Montreal, Que.
Guelph Oiled Clothing Co., Ltd., The, Guelph, Ont.
Lipsett, Edward, Vancouver, B.C.
Male Attire, Ltd., Montreal, Que.
Matte, T., Oiled Clothing Co., Ltd., Quebec, Que.
Montreal Waterproof Clothing Co., Montreal, Que.
National Rubber Co. of Canada, Montreal, Que.
Samit Rubber Co., Montreal, Que.
Scottish Rubber Co., The, Montreal, Que.
Tower Canadian, Ltd., Toronto, Ont.
Walpole Rubber Co., Ltd., Montreal, Que.
Wener, Samuel, & Co., Ltd., Montreal, Que.

CLOTHING, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Columbus Rubber Co., of Montreal, Ltd., Montreal, Que.
National Rubber Co., of Canada, Ltd., Montreal, Que.
Walpole Rubber Co., Ltd., Montreal, Que.

CLOVES, the flower-buds of a tree of the order Myrtaceæ. The tree is a native of the Moluccas, and the cloves of Amboyna are still considered the best, but it is cultivated also in Java and Sumatra, Zanzibar, Mauritius, Reunion and the West Indies. The chief extract is oil of cloves, used as a spice; the tincture is added to certain drug mixtures. The fruit and stems have the same taste and odour, but of much less strength. Clove bark is a name applied to several barks of species of cinnamon and clove.

CLUBS AND DUMB BELLS.

Smart, The James, Mfg. Co., Ltd., Brockville, Ont.

CLUTCHES, Coupling.

Berg Machinery Mfg. Co., Ltd., Toronto, Ont.
Chapman Double Ball Bearing Co. of Canada, Ltd., Toronto, Ont.
Dodge Mfg. Co., Ltd., Toronto, Ont.
Goldie & McCulloch Co., Ltd., The, Galt, Ont.
International Engineering Works, Ltd., Montreal, Que.
Positive Clutch & Pulley Works, Ltd., Toronto, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

CLUTCHES, Friction.

Goldie & McCulloch Co., Ltd., The, Galt, Ont.
Jones & Glassco, Montreal, Que.
Muskoka Foundry Co., Bracebridge, Ont.
Positive Clutch & Pulley Works, Ltd., Toronto, Ont.
Williams & Wilson, Ltd., Montreal, Que.

COAL is a light, black or dark-brown sub-brown substance formed by the alteration of the remains of forests and peat-mosses which grew in far distant geological ages. It is found in strata of many different ages, but the most important coal-fields belong to the upper measures of the Carboniferous system. Coal consists principally of carbon, hydrogen, and oxygen, the harder kinds have lost a larger proportion of their gases. Whereas wood contains more than 12 parts of hydrogen and 83 parts of oxygen to 100 of carbon, anthracite, the hardest kind of coal contains less than 3 parts of hydrogen and about 1¾ of oxygen. This kind gives out great heat and is used in furnaces. The chief anthracite deposits are in Wales and Pennsylvania. Of bituminous coals the hardest are steam coal and cannel (candle) coal, used chiefly for the production of gas. There are also coking and non-coking coals. The former swell up under the action of heat into a spongy mass, give off much smoke, and are most suitable for the manufacture of coke, while the non-coking varieties burn with a bright flame. Lignite, the harder kinds of which are often called Brown Coal, is intermediate in character between peat and coal, still containing a considerable volume of gas, and often showing a fibrous structure. As a rule it is smoky and gives out little heat, but much lignite is little inferior to bituminous coal. Coal seems to vary in thickness, from an inch or two up to forty feet and more. Those less than two feet thick are seldom worked. Coal occurs in nearly all parts of the world, from Alaska and Siberia, in the Northern hemisphere to Argentina and Australia in the South, but the greatest production is in the temperate countries of the Northern hemisphere, where manufactures flourish and wood fuel is scarce. Great Britain, France, and Germany contain the most important coal fields in Europe, the coal of the southern and southeastern countries being chiefly lignite. There has been much discussion of the question, how large are the coal supplies of the United Kingdom and the Royal Commission after enquiries made in 1903 and 1904, reported that the available coal resources in seams of 2 feet thick and upwards, and lying within a depth of 4,000 feet are fully 100,914 million tons, while the geological committee estimated the resources of the concealed and improved coal fields at nearly 39,484 million tons. How long this supply will last it is impossible to foretell. United States contain far more extensive coal fields, the bituminous areas covering in the aggregate more than 335,000 square miles, and anthracite underlying an area of about 484 square miles in Eastern Pennsylvania and also occurring in two small deposits in the Rocky Mountain regions, China also, has very large coal fields at present worked to comparatively small extent. In New South Wales there are said to be 150,000,000 tons, and the same quantity in Queensland, while Victoria possesses great masses of brown coal.

Canada has an abundant supply of coal in both Eastern and Western provinces. Central Canada, particularly Ontario, depends largely upon United States for its supply of coal. The coal mines of Nova Scotia and New Brunswick supply Eastern Canada as far west as Montreal. British Columbia and Alberta possess very large areas of bituminous coal. The world's production of coal for the year 1913, aggregated 1,443,393,052 short tons. The principal countries contributing to this production are as follows:—

	Tons.
United States	570,048,125
Great Britain	321,922,130
Germany	281,979,467
Austria-Hungary..	56,954,579
France	45,108,544
Russia	31,752,744
Belgium..	25,322,851
Japan...	21,648,902
China	16,534,500
India	16,471,100
Australia, New Zealand ..	16,167,019
Canada	* 15,115,089
British South Africa	7,989,403
Spain..	4,559,453

The importations of coal and coke into Canada during the fiscal year ending March 31st, 1914, amounted to $49,035,838. The exports during the same year amounted to $4,131,267.

COAL.

Acadia Coal Co. Ltd., Stellarton, N.S.
Adams Coal Mine Co., Ltd., Lethbridge, Alta.
Alaska Exploration Co., Yukon.
Alberta Coal Mining Co., Edmonton, Alta.
Bankhead Mines, Ltd., Bankhead, Alta.
Bathurst Coal Co., Ltd., Diamond City, Alta.
Battle River Collieries, Rosenroll, Alta.
Belly River Collieries (White Ash), Ltd., Taber, Alta.
Big Valley Coal Co., Big Valley, Alta.
Black Diamond Coal Co., Carbon, Alta.
Bonnie Brae Coal & Quarries Co., Ltd., Calgary, Alta.
Boundary Mining and Exploration Co., Ltd., Wattsburg, B.C.
Bow Island Coal Co., Bow Island.
Breckenridge & Lnnd Coal Co., Lundbreck, Alta.
British Pacific Coal Co., Ltd., Queen Charlotte, B.C.
Calgary Collieries, Ltd., Calgary, Alta.
Canadian Coal Consolidated Co., Frank, Alta.
Canadian Collieries (Dunsmuir), Ltd., Victoria, B.C.
C. P. R. Depart. of Natural Resources, Lethbridge, Alta.
Canmore Coal Co., Ltd., Canmore, Alta.

Cape Breton Coal, Iron and Ry. Co., Chester, Eng.
Cardiff Collieries, Ltd., Cardiff, Alta.
Chinook Coal Co., Lethbridge, Alta.
City of Lethbridge Coal Mine, Lethbridge, Alta.
Clayburn Co., Ltd., Clayburn, B.C.
Clover Bar Coal Co., Clover Bar, Alta.
Coalbeck Coal and Clay Products Co., Castor, Alta.
Coalfax Coal Mining Co., Hastings Coulee, Alta.
Colonial Coal Co., Ltd., The, New Sydney, N.S.
Columbia Coal & Coke Co., Ltd., Coalmont, B.C.
Consumers Coal Co., Ltd., Moosejaw, Sask.
Corbin Coal and Coke Co., Ltd., British Columbia.
Crowsnest Pass Coal Co., Ltd., B.C.
Cumberland Railway & Coal Co., Ltd., N.S.
Dawson Coal Co., The, Edmonton, Alta.
Dominion Coal Co., Ltd., Glace Bay, N.S.
Drumheller Coal & Coke Co., Ltd., Drumheller, Alta.
Edmonton Standard Coal Co., Edmonton, Alta.
Estevan Coal & Brick Co., Ltd., Estevan, Sask.
Five Finger Coal Co., Tantalus, Yukon.
Hillcrest Coal & Coke Co., Hillcrest, Alta.
Hosmer Mines, Ltd., B.C.
Humberstone Coal Co., Edmonton, Alta.
Imperial Coal & Coke Co., The, New Michel, B.C.
Inland Coal & Coke Co., Ltd., B.C.
International Coal & Coke Co., Coleman, Alta.
International Coal Co., New Glasgow, N.S.
Jasper Park Collieries, Ltd., Pocahontas, Alta.
Knowlton Collieries, Ltd., Bituma, Alta.
Leith Colliery, Ltd., Passburg, Alta.
Lethbridge Collieries, Lethbridge, Alta.
Mabou & Gulf Coal Co., Ltd., Mabou Mines, C.B.
McGillivray Creek Coal & Coke Co., Ltd., Coleman, Alta.
Minto Coal Co., Ltd., Minto, N.B.
Mitford (Calgary), Colliery Co., Ltd., Calgary, Alta.
Monarch Collieries, Ltd., Taber, Alta.
New Brunswick Coal & Ry. Co., Norton, N.B.
Newcastle Coal Co., Drumheller, Alta.
North American Transportation & Trading Co., Yukon.
North Atlantic Collieries, Ltd., The, Montreal, Que.
Northern Coal & Coke Co., Ltd., Fernie, B.C.
Northern Light, Power & Coal Co., Ltd., Coal Creek, Yukon.
Northfield Coal Co., Minto, N.B.
Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Raisbeck Collieries, Ltd., Regina, Alta.
Redcliff Brick & Coal Co., Redcliff, Alta.
Rock Springs Sootless Coal Co., Taber, Alta.
Rose Deer Coal Mining Co., Ltd., The, Calgary, Alta.
Round Hill Collieries, Round Hill, Alta.
Souris Collieries Co., Estevan, Sask.
Sovereign Coal Co., Ltd., Adamsville, N.B.
Spicer Coal Co., Ltd., Saskatoon, Sask.
Standard Lethbridge Collieries, Regina, Alta.
Stoney Creek Collieries, Ltd., The, Camrose, Alta.
Strathcona Coal Co., Moncton, N.B.
Tofield Coal Co., Tofield, Alta.
Twin City Coal Co., Ltd., Edmonton, Alta.
United Empire Coal Co., Ltd., Princeton, B.C.
Vancouver-Nanaimo Coal Mining Co., Ltd., The, Vancouver, B.C.
West Canadian Collieries, Bellevue, Alta.
Western Coal & Coke Co., Lethbridge, Alta.
Whitehorse Coal Co., Whitehorse, Yukon.
White Star Coal Co., Edmonton South, Alta.
Winter Port Coal Mining Co., Ltd., Calgary, Alta.
Yellowhead Pass Coal & Coke Co., Ltd., via Bickerdike, Alta.

COAL-TAR, a black opaque liquid obtained when coal is distilled, and now usually obtained in the process of gas manufacture. Aniline, alizarine, benzol, creosote, and naphthaline are extracted from it, and lamp black for printing ink.

COAL TAR PRODUCTS.

Carritte, de B., St. John, N.B.
Dominion Tar & Ammonia Co., Ltd., Hamilton, Ont.
Dominion Tar & Chemical Co., Ltd., Montreal, Que.
Hamilton Tar Distilling Co., The, Hamilton, Ont.
McArthur, Alex., & Co., Ltd., Montreal, Que.
McComb, J. H., Ltd., Montreal, Que.
Paterson Mfg. Co., Ltd., Montreal, Que., and Toronto, Ont.

COATINGS, broadcloths, made of wool, mixed materials, or worsted. Duffel is a coarse woollen coating with a thick nap.

COATS, Fur.

Alexander, A. J., Montreal, Que.
Allan, A. A. & Co., Ltd., Toronto, Ont.
Ansley-Dineen Hat & Fur Co., Ltd., Toronto, Ont
Berlin Robe & Clothing Co., Ltd., Berlin, Ont.
Bishop, J. H. Co., Sandwich, Ont.
Bourdeau, J. & Son, Montreal, Que.
Brandon Tannery, Ltd., Brandon, Man.
Bremner, Alex., Tillsonburg, Ont.
Brenton, The Albert J., Co., Ltd., Winnipeg, Man.
Brereton & Steward, Toronto, Ont.
Coristine, Jas., & Co., Ltd., Montreal, Que.
Dechene & Poulin, Quebec, Que.
Delhi Mfg. Co., The, Delhi, Ont.
Fairweathers, Ltd., Toronto, Ont.
Gillespie Fur Co., Ltd., The, Toronto, Ont.
Gnaedinger, L., Son & Co., Montreal, Que.
Holt, Renfrew & Co., Quebec, Que.
Jose R., Toronto, Ont.
Kahnert, W., Toronto, Ont.
Laliberte, J. B., Quebec, Que.
Livingstone Mfg. Co., The, Montreal, Que.
Magee's D. Sons, Ltd., St. John, N.B.
Orr, Wm. E. & Co., Toronto, Ont.
Quebec Fur Mfg. Co., The, Quebec, Que.
Sandham & Thurston, Toronto, Ont.
Sellers-Gough Fur Co., Ltd., Toronto, Ont.
Sovereen Mitt, Glove & Robe Co., Ltd., The, Delhi, Ont.
Waldron, Drouin Co., Ltd., Montreal, Que.

COATS, Fur-lined.

Bishop, J.H., Co., Sandwich, Ont.
Brereton & Steward, Toronto, Ont.
Brodey, Draimin Fur Co., Toronto, Ont.
Coristine, Jas., & Co., Ltd., Montreal, Que.
Delhi Mfg. Co., The, Delhi, Ont.
Economic Clothing Co., Ltd., The, Quebec, Que.
Galt Robe Co., The, Galt, Ont.
Gillespie Fur Co., Ltd., The, Toronto, Ont.
Gnaedinger, L., Son & Co., Montreal, Que.
Jose, R., Toronto, Ont.
Ruckenstein Bros., Montreal, Que.
Sandham & Thurston, Toronto, Ont.
Tackaberry's, Ltd., Toronto, Ont.
Winnipeg Fur Co., Ltd., The, Winnipeg, Man.

COATS, Leather. (See also Clothing, Leather).

Davidson, W. H., & Co., Brandon, Man.
Gauthier, Prevost & Frere, Montreal, Que.
Hudson Bay Knitting Co., Montreal, Que.

COATS, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
National Rubber Co. of Canada, Montreal, Que.

COATS, Sheepskin Lined.

Acme Glove Works, Ltd., Montreal, Que.
Clarke, A. R., & Co., Ltd., Toronto, Ont.
Davidson, W. H., & Co., Brandon, Man.
Gauthier, Prevost & Frere, Montreal, Que.
Livingstone Mfg. Co., The, Montreal, Que.
Redmond Co., Ltd., The, Montreal, Que.
St. Laurent Garment Co., Montreal.

COBALT.—A somewhat rare metal generally found in combination with arsenic (cobalt spiess) ore with arsenic and sulphur (cobalt glance). The oxide of cobalt is used as a glue pigment in coarse-grain painting, paper, tiles, etc. It is seldom used in this form but is generally mixed with glass which is oxide ground to a fine powder, in commerce known as smalt. Cobalt is the chief ingredient in Old Sevres blue, turquois blue, etc., and with zinc produces the beautiful Renman's green.

Until the silver-Cobalt-arsenic ores of Cobalt, Ont., were discovered, the supplies came largely from Germany and New Caledonia, but the ores from Cobalt, Ont., contain so much cobalt which is produced as a by-product in the extraction of silver, that the world's supply of oxide is produced almost entirely from these ores. For a few years after the discovery of cobalt the spiess from the smelters treating the ores were shipped to Europe, where the cobalt was extracted. At this period the production of cobalt oxide was controlled by the European Cobalt Syndicate. The development of Canadian smelters, however, have changed the situation, and at the present time the world's requirements of Cobalt oxide is supplied by the Canadian smelters.

COBBLERS' SETS.

Taylor-Forbes Co., Ltd., Guelph, Ont.

COCA, the leaves of a shrub which grows in South America, are extensively consumed by the Indians as a stimulant. In Europe it is mixed with wine. The alkaloid cocaine is very valuable as a local anæsthetic.

COCCO, or Coco, or Eddoes, plants of the genus Colocasia, cultivated in tropical countries for their edible roots.

COCCULUS INDICUS, a berry, the fruit of a climbing plant indigenous in the East Indies, where it is used to stupefy fish. The berries contain a poisonous principle, picrotoxine, and are imported into Europe to make insecticide powder.

COCHINEAL, a scarlet and crimson dyestuff. Cochineal is the bodies of the females of the Coccus cacti, which feed on cactus plants. The insects are an object of cultivation in Central America, and both the insect and plant have been introduced into the Canary Islands, Algeria, Java, and Australia. About 70,000 insects go to a pound, and they yield 10 per cent. of pure dye. The introduction of aniline dyes has reduced the price of cochineal. **(See also CARMINE.)**

COCKS, Brass.

Babcock & Wilcox, Ltd., Montreal, Que.
Canadian Brass Co., Ltd., Galt, Ont.
Canadian Detroit Lubricator Co., Ltd., Walkerville, Ont.
Cuthbert, W. R., & Co., Montreal, Que.
Garth Co., The, Montreal, Que.
Mitchell, The Robt., Co., Ltd., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Mueller, H., Mfg. Co., Ltd., Sarnia, Ont.
National Brass, Ltd., The, London, Ont.
Penberthy Injector Co., Ltd., Windsor, Ont.

COCKS, Compression, Bath, Basin, Beer, Plumbers', Etc.

Golden Gate Mfg. Co., Ltd., Montreal, Que.
Imperial Mfg. Co., Welland, Ont.
Mitchell, The Robt. Co., Ltd., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Mueller, H., Mfg. Co., Ltd., Sarnia, Ont.
Wallaceburg Brass & Iron Mfg. Co., Ltd., Wallaceburg, Ont.

COCO-NUT, the fruit of the palm Cocos nucifera, now growing in most tropical lands, especially near the sea. The racemes bear five to fifteen nuts, and ten or twelve bunches grow on a tree, and the fruit is gathered four or five times in the year. The kernel contains more than 70 per cent. of a fixed oil, which is used as a lamp oil, and is imported into Europe in a dried state for the manufacture of stearine soap. The oil itself is also imported. The sap of the tree yields palm wine and arrack, and is often boiled down into sugar (jaggery). The leaves are made into mats, screens, &c., and the fibre of the husk is much used for matting, &c. The double coco-nut grows on some of the Seychelles islands; it is the fruit of a different palm.

COCOA is the seeds of a tree which grows chiefly in the tropical countries of America, but is also cultivated in the East Indies and parts of Africa. The tree reaches a height of 40 feet and generally produces its first fruit in its fourth year. It reaches its prime in its 12th year and continues to bear until its 30th year or even longer. The seeds occur in pods 7 to 9 inches long which contain from 20 to 40 seeds embedded in a pinkish acid pulp. The chief crops are gathered in May or June and in October or November, but some fruits are ripening all the year round. To prepare them for market the seeds are fermented in shallow pits or in closely sealed barrels or rooms and are covered with red earth which removes the remains of the pulp and tinges the berries red. The seeds are then roasted and ground into a fine paste and when pure or mixed only with flour or other farinaceous matter, are usually known as cocoa, but when sweetened and flavored with vanilla or other essences is generally called chocolate. Cocoa contains fully 22 per cent. of nitrogenous foods. The oil, of which it contains about 50 per cent., is sold under the name of cocoa butter. Equador is the largest producer. The cocoa of Central America is of excellent quality, but is little exported. The cocoas of Ceylon and Caracas, Venezuela, are also noted for their fine quality. The importations of cocoa beans, paste, chocolate, cocoa butter and cocoa liquor into Canada amounted to $2,732,046 in the fiscal year ending March 31st, 1914.

COCOA.

Baker, Walter, & Co., Ltd., Montreal, Que.
Cowan Co., Ltd., The, Toronto, Ont.
Imperial Cocoa & Spice Co., Ltd., Hamilton, Ont.
Kootenay Jam Co., Ltd., The, Mission City, B.C.
Lowney, The Walter M., Co. of Canada, Ltd., Montreal, Que.
Mott, John P., & Co., Halifax, N.S.
Schwartz, W. H., & Sons, Halifax, N.S.

COCOANUT, Prepared.

Canadian Cocoanut Co., Montreal, Que.
Downey, W. P., Montreal, Que.
Schepp, Leopold, Co., Toronto, Ont.

COCOA PLUM, the pulpy fruit of the Chrysobalanus Icaco, a small tree of the Rosaceæ order, which grows in the West Indies. The fruit is eaten and also made into pickles. Other species growing in Africa yield edible fruits.

COCOON. (See SILK.)

COCUS WOOD, a dark brown wood from a West Indian tree. It is also known as West Indian and Jamaica ebony.

COD, a kind of fish.—It is particularly plentiful on the banks of Newfoundland, and is caught in large numbers on the Dogger Bank and off the coasts of Scotland and Norway. It is not only eaten fresh but is dried or salted, and large quantities are shipped to various countries. The oil extracted from the liver of the cod is exported from Newfoundland and Norway. The coarser brown oil is chiefly used by curriers, the light refined oil as a medicine. The roes are smoked and dried for food, and are used in France as bait for the sardine fishery, and are called rogue. **(See FISH.)**

CODEINE. (See OPIUM.)

CODILLA. (See TOW.)

COFFEE, the coffee plant is a small shrub of the family Rubiaceæ which has numerous representatives in the tropics. Coffee is a native of Kaffa in Abyssinia. It was introduced into Arabia at the beginning of the 15th century and the beverage was first used in Constantinople in 1534. Rather more than a century later it spread over Europe, the first coffee house in London being opened in 1652. In 1650 the Dutch sent plants to Java and in 1723 the cultivation of coffee was commenced in Martinique, whence it spread over Central and Southern America. At present South America, especially Brazil, is the greatest coffee-growing country. Brazil alone could supply the world. In Brazil it is cultivated chiefly in the districts of Sao Paulo and Rio de Janeiro. The coffee tree begins to bear in its third year and continues to yield good crops until its twentieth year. The fruit is oval and about the size of a cherry and contains two seeds which are the so-called coffee beans or berries. As the flowering season extends over eight months, the berries are not all ripe at the same time and they are usually gathered about three times a year. After being dried in the sun, they are passed between rollers to remove the dried pulp. Each fruit contains two seeds enveloped in two pods which are sometimes left on when the coffee is shipped. Coffee which is not pulped is of inferior quality. From South America the beans are exported in bags of 60 kilograms (about 132 lbs.) and this is the weight of the bag generally given in market quotations. In commerce, coffee is distinguished as Mocha coffee with small gray beans; Java or East India coffee with large yellow beans; Jamaica, the beans of which are rather smaller and greenish; Surinam, which has the largest of all beans and Bourbon, with very pale yellow beans.

Coffee owes its exhilarating properties to the presence of caffeine, a volatile oil and caffeo-tannic and caffeic acids.

The root of the chicory plant is often roasted, ground and mixed with coffee. (See CHICORY.)

Importations of coffee, chicory, and other imitations into Canada during the fiscal year ending March 31st, 1914, were valued at $2,402,218.

COFFEE.

Barbour, G. E. Co., Ltd., St. John, N.B.
Braid, Wm., & Co., Vancouver, B.C.
Blue Ribbon, Ltd., Winnipeg, Man.
Brantford Coffee & Spice Mill, The, Quebec, Que.
Canadian Spice Mill, The, Quebec, Que.
Chase & Sanborn, Montreal, Que.
Cochrane, C. H., & Co., Ottawa, Ont.
Codville Co., Ltd., Winnipeg, Man.
Dalton Bros., Toronto, Ont.
Dearborn & Co., Ltd., St. John, N.B.
Dominion Coffee & Spice Mills Co., Montreal, Que.
Dyson Co., The, Winnipeg, Man.
Eby-Blain, Ltd., Toronto, Ont.
Empress Mfg. Co., Ltd., Vancouver, B.C.
Estabrooks, T. H. Co., Ltd., St. John, N.B.
Ewing, S. H. & Sons, Montreal, Que.
Georgeson & Co., Ltd., Calgary, Alta.
Gorman, Eckert & Co., Ltd., London, Ont.
Herron-LeBlanc, Ltd., Montreal, Que.
Imperial Cocoa & Spice Co., Ltd., Hamilton, Ont.
Jameson, W. A., Coffee Co., Victoria, B.C.
Kelly, Douglas & Co., Ltd., Vancouver, B.C.
Litser Pure Food Co., Ltd., Toronto, Ont.
Lowes, The J. M. Co., Ltd., Toronto, Ont.
McLaren's, Ltd., Hamilton, Ont.
Mott, John P. & Co., Halifax, N.S.
National Coffee & Spice Co., Montreal, Que.
Pioneer Coffee & Spice Mills, Ltd., The, Victoria, B.C.
Pure Gold Mfg. Co., Ltd., Toronto, Ont.
Schwartz, W. H. & Sons, Halifax, N.S.
Tuxedo Coffee & Spice Co., Ltd., Calgary, Alta.
White Star Mfg. Co., The, Winnipeg, Man.
White Swan Spices & Cereals, Ltd., Toronto, Ont.
Young-Winfield, Ltd., Hamilton, Ont.

COFFINS AND CASKETS.

Dominion Casket Co., Guelph, Ont.
Edmonton Casket, Box & Mfg. Co., Ltd., Edmonton, Alta.
Elliott, James S. & Son, Prescott, Ont.
Evel Casket Co., Hamilton, Ont.
Girard & Godin, Three Rivers, Que.
Globe Casket Co., The, London, Ont.
Great West Casket Co., Ltd., Vancouver, B.C.
Harriston Casket Co., Ltd., The, Harriston, Ont.
National Casket Co., Toronto, Ont.
Semmens & Evel Casket Co., Ltd., Hamilton, Ont.
Winnipeg Casket Co., Ltd., Winnipeg, Man.

COGNAC. (See BRANDY.)

COHUNE, the palm Aitalea cohune, a native of Central America, yields the valuable cohune oil, which is said to be superior to coco-nut oil for burning.

COILS, Copper, Steam.

Allan, R. Geo., Toronto, Ont.
Fiddes & Hogarth, Ltd., Toronto, Ont.
Mitchell, The Robt., Co., Ltd., Montreal, Que.

COILS, Dry Kiln.

Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

COILS, Spark.

Canadian General Electric Co., Ltd., Toronto, Ont.
Marshall-Davis, Ltd., Dunnville, Ont.

COIR, the fibre from the husk of the coco-nut.

COKE, a fuel obtained by heating coal in mounds, ovens, or gas retorts where the air is excluded. Tar-water and coal-gas are driven off and the residual coke is a hard, brittle, greyish substance, which burns with great heat and without smoke, and is therefore valuable in metallurgical factories and for other purposes. Coal yields about 70 per cent. by weight of coke. In purchasing coke by weight it is well to remember that it absorbs a considerable amount of moisture from the air.

COKE.

Empire Refining Co., Ltd., The, Wallaceburg, Ont.
Lake Superior Corporation, The, Sault Ste. Marie, Ont.
Standard Fuel Co. of Toronto, Ltd., The, Toronto, Ont.

COLA NUT. (See KOLA.)

COLCHICUM, a plant of the order Liliaceæ, of which the only British variety is the meadow saffron, sometimes called the autumn crocus. The whole plant has a very bitter taste, owing to the presence of the alkaloid colchicine. The root and seeds are used in the preparation of medicine for gout and rheumatism.

COLLAR BUTTONS.

Arlington Co. of Canada, Ltd, The, Toronto, Ont.

COLLARS, Dog.

Ackerman, B. F., Son & Co., Peterborough, Ont.
Edwards, J. E., & Sons, Toronto, Ont.
Kelly's, Ltd., Halifax, N.S.

COLLARS, Horse.

Ackerman, B. F., Son & Co., Peterborough, Ont.
Adams Bros., Harness Mfg. Co., Ltd Toronto, Ont.
Beal Bros., Limited, Toronto, Ont.
Bickerton Bros., & Co., Woodstock, Ont.
Borbridge, S. & H., Brandon, Man., and Ottawa, Ont.
Darch, J. & Sons, London, Ont.
Gananoque Harness Works, Ltd., Gananoque, Ont.
Great West Saddlery Co., Ltd., The, Winnipeg, Man.
Heney Carriage & Harness Co., Ltd., Montreal, Que.
Jolley, Jas. & Sons, Ltd., Hamilton, Ont.
Lamontagne, Ltd. Montreal, Que.
Rudd, Geo. A. & Co., Ltd., Toronto, Ont.
Trees, Samuel & Co., Ltd., Toronto, Ont.
Winnipeg Saddlery Co., Ltd., The, Winnipeg, Man.
Wry, A. E., Ltd., Sackville, N.B.

COLLARS and CUFFS, Linen.

Canadian Converters Co., Ltd., Montreal, Que.
Cluett, Peabody & Co., Montreal, Que.
Crown Shirt Co., Ltd., The, Winnipeg, Man.
Hagen Shirt & Collar Co., Ltd., The, Berlin, Ont.
Tooke Bros., Ltd., Montreal, Que.
Van Allen Co., Ltd., Hamilton, Ont.
Williams, Greene & Rome Co., of Berlin, Ltd., The, Berlin, Ont.
Wiegand, J. E., & Co., Berlin, Ont.

COLLARS and CUFFS, Waterproof.

Arlington Co. of Canada, Ltd., The, Toronto, Ont.
Miller Bros. Co., Ltd., Montreal, Que.
Parsons & Parsons Canadian Co., Hamilton, Ont.
Smith-D'Entremont Co., Ltd., The, Toronto, Ont.

COLLODION, gun-cotton dissolved in ether or a mixture of ether and alcohol. When exposed to the air it soon dries up into a thin film, and therefore it is applied to wounds, and in photography. The addition of Canada balsam and castor-oil imparts to it greater flexibility.

COLOCYNTH, a purgative medicine, the dried and powdered pulp of the Colocynth gourd, bitter apple, or bitter cucumber. Mogador, Spain, and Japan are the chief sources of supply.

COLOMBO ROOT. (See CALUMBA.)

COLOPHONY, a name for the black resin obtained by the distillation of turpentine.

COLOR, Butter.

Wells & Richardson Co., Ltd., Montreal, Que.

COLORS, Confectioners' and Bottlers'.

Bush, W. J., & Co., (Canada), Ltd., Montreal, Que.
Canadian Coacoanut Co., Montreal, Que.
Hutchinson & Peterson, Toronto, Ont.
Labatt, John, Ltd., London, Ont.
Patrick, W. G., & Co., Toronto, Ont.
Robinson Mfg. Co., The, Toronto, Ont.
Seely Mfg. Co., Ltd., Windsor, Ont.
Willson & Warden, Toronto, Ont.

COLORS, Dry.

Brandram-Henderson, Ltd., Halifax, N.S., and Montreal, Que.
British America Paint Co., The, Victoria, B.C.
Canada Paint Co., Ltd., Winnipeg, Man.
Champlain Oxide Co., Three Rivers, Que.
Imperial Varnish & Color Co., Ltd., Toronto, Ont.
Ramsay, A., & Son, Co., Montreal, Que.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
Staneland Co., Ltd., The, Victoria, B.C.
Toronto Lead & Color Co., Ltd., Toronto, Ont.

COLORS, in Japan.

Brandram-Henderson, Ltd., Halifax, N.S., and Montreal, Que.
British America Paint Co., The, Victoria, B.C.
Imperial Varnish & Color Co., Ltd, Toronto, Ont.
Langmuir, James, & Co., Ltd., Toronto, Ont.
Martin-Senour Co., Ltd., The, Montreal, Que.
Moore, Benjamin, & Co., Ltd., Toronto, Ont.
Muirhead, A., Co., Ltd., Toronto, Ont.
Ramsay, A., & Son, Co., Montreal, Que.
Standard Paint & Varnish Co., Ltd., The, Windsor, Ont.
Staneland Co., Ltd., The, Victoria, B.C.
Stephens, G. F., & Co., Ltd., Winnipeg, Man.

COLORS, in Oil.

Brandram-Henderson, Ltd., Montreal, Que., and Halifax, N.S.
Canada Paint Co., Ltd., The, Winnipeg, Man.
Canadian Oil Co., Ltd., Winnipeg, Man.
Eastern Paint Co., Ltd., The, Halifax, N.S.
Imperial Varnish & Color Co., Ltd., Toronto, Ont.
International Varnish Co., Ltd., Toronto, Ont.
Jamieson, James W., & Co., Montreal, Que.
Langmuir, James & Co., Ltd., Toronto, Ont.
Martin-Senour Co., Ltd., The, Montreal, Que.
Mander Bros., Montreal, Que.
Moore, Benjamin, & Co., Ltd., Toronto, Ont.

Mount Royal Color & Varnish Co., Ltd., Montreal, Que.
Muirhead, A., Co., Limited, Toronto, Ont.
Ottawa Paint Works, The, Ottawa, Ont.
Pinchin, Johnson & Co., (Canada), Ltd., Toronto, Ont.
Ramsay, A., & Son Co., Montreal, Que.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
Staneland Co., Ltd., The, Victoria, B.C.
Stephens, G. F., & Co., Ltd., Winnipeg, Man.

COLORS, Mortar.

Champlain Oxide Co., The, Three Rivers, Que.
Manton Brothers, Toronto, Ont.
Moore, Benjamin, & Co., Ltd., Toronto, Ont.
Muirhead, A., Co., Ltd., Toronto, Ont.

COLORS, Water.

Alabastine Co., Paris, Ltd., The, Paris, Ont.
Muirhead, A., Co., Ltd., Toronto, Ont.
Staneland Co., Ltd., The, Victoria, B.C.
Stephens, G. F., & Co., Ltd., Winnipeg, Man.

COLOURS, pigments ready prepared for use by artists, house-decorators, glass-workers, &c. The materials of which they are composed are ground and mixed with water or oil with an admixture of drying oil. The finest are used by painters, somewhat less fine for chromotype and chromolithography, and the coarser colours for house-painting. Powdered glass coloured with metallic oxides is employed in enamelling. Gold and silver is ground and mixed with gum for artistic decoration, and bronze powders of all colours are prepared, chiefly in Germany. In coarse paints, metallic combinations, especially white lead and zinc-white, are largely used because of their opaqueness, and also native earths, as oxide of iron, ochre, and umber, but vegetable substances and animal—lac, bone-black, &c.—are also ingredients.

COLUMNS and PILASTERS, Building.

Anglin, S., & Co., Kingston, Ont.
Corinthian Stone Co., Guelph, Ont.
Milne, Coutts & Co., Ltd., St. George, N.B.
Stanstead Granite Quarries Co., Ltd., Beebe, Que.
Tayte, Meating & Co., St. George, N.B.

COLUMNS, Iron (Building).

Calgary Iron Works, Ltd., The, Calgary, Alta.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Corbet Foundry Co., The, Owen Sound, Ont.
Dominion Architectural Iron Works, Ltd., Montreal, Que.
Don Foundry Co., Toronto, Ont.
Hamilton Bridge Works Co., Ltd., The, Hamilton, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Hepburn, John T., Toronto, Ont.
Inglis, The John Co., Ltd., Toronto, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Lethbridge Iron Works, Lethbridge, Alta.
McGregor & McIntyre, Ltd., Toronto, Ont.
MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.
Matheson, I. & Co., Ltd., New Glasgow, N.S.
Mount Royal Foundry Co., Ltd., The, Montreal, Que.
National Bridge Co. of Canada, Ltd., Montreal, Que.
Regina Foundry, Ltd., Regina, Sask.
Sarnia Bridge Co., Ltd., Sarnia, Ont.
Saskatchewan Bridge & Iron Co., Ltd., Moose Jaw, Sask.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Structural Steel Co., Ltd., Montreal, Que.
Watson, John & Son, of Montreal, Ltd., Montreal, Que.
Winnipeg Wire & Iron Works, Winnipeg, Man.

COLUMNS, Verandah.

Ball Planing Mills Co., Ltd., The, Barrie, Ont.
Batts, Ltd., West Toronto, Ont.
Canadian Western Lumber Co., Ltd., Fraser Mills, B.C.
Cargill Planing Mills Co., The, Cargill, Ont.
Crevier & Fils, Montreal, Que.
Eaton, J. R. & Sons, Ltd., Orillia, Ont.
Gardner, P. W., & Son, Galt, Ont.
Georgian Bay Shook Mills, Ltd., Midland, Ont.
Hanbury, J. & Co., Ltd., Vancouver, B.C.
Hancock, T. H., Toronto, Ont.
Holton Lumber Co., Ltd., Belleville, Ont.
Laidlaw, R., Lumber Co., Ltd., The, Toronto, Ont.
Ottawa Stair Works, Ottawa, Ont.
Pringle Co., The, Belleville, Ont.

COLZA OIL, an oil obtained from rape, or cole-seed. Formerly it was largely burned in lamps, but petroleum, which is cheaper, has to a large extent taken its place. Colza is also a lubricating oil.

COMB.—Combs are made of horn, ivory, tortoise-shell, bone, metal, India rubber, and xylonite. The teeth are cut in bone, ivory, &c., with circular saws, and xylonite and India rubber combs are moulded, the latter being afterwards vulcanised.

COMBS, Curry.

Burrow, Stewart, & Milne Co., Ltd., The, Hamilton, Ont.
Steel Equipment Co., Ltd., Ottawa, OOnt.
Wright, E. T., & Co., Hamilton, Ont.

COMBS, Dressing and Fine.

Arlington Co. of Canada, Ltd., The, Toronto, Ont.
Dominion Comb & Novelty Co., Warwick, Que.
McComisky, R. B., & Co., Granby, Que.
Smith, D'Entremont Co., Ltd., The, Toronto, Ont.

COMFORTERS.

Canadian Carpet & Comforter Mfg. Co., Ltd., Toronto, Ont.
Canadian Feather & Mattress Co., Ltd., Toronto, Ont.
Harvey, B. F., Co., Ltd., Toronto, Ont.
Stamco, Ltd., Saskatoon, Sask.
Toronto Feather & Down Co., Ltd., Toronto, Ont.

COMMANDERIA, a sweet, dark Cyprian wine.

COMMUTATORS.

Canadian Crocker-Wheeler Co., Ltd., The, St. Catharines, Ont.
Canadian General Electric Co., Ltd., Toronto, Ont.
Consolidated Electric Co., Ltd., Toronto, Ont.

COMPASSES.

Gowlland Optical Co., Ltd., Montreal.

COMPOSITION, Roller and Padding.

Ault & Wiborg Co. of Canada, Ltd., Toronto, Ont.
Canada Printing Ink Co., Ltd., Toronto, Ont.
Robertson, J. S., Montreal, Que.

COMPOUND, Boiler.

Bird, Archer Co., The, Winnipeg, Man.
British American Oil Co., Ltd., The, Toronto, Ont.
Canadian Economic Lubricant Co., Ltd., Montreal, Que.

Canadian H. W. Johns-Manville Co., Ltd., Toronto, Ont.
Crescent Oil Co., The, Hamilton, Ont.
Commercial Oil Co., Ltd., Hamilton, Ont.
Electric Boiler Compound Co., Ltd., Guelph, Ont.
Crown Oil Refining Co., Ltd., Hamilton, Ont.
McColl Bros. & Co., Toronto, OOnt.

COMPOUNDS, Bolt Cutting.

Canadian Economic Lubricant Co., Ltd., Montreal, Que.
Commercial Oil Co., Ltd., Hamilton, Ont.
Crescent Oil Co., The, Hamilton, Ont.
McColl Bros. & Co., Toronto, Ont.
Ontario Lubricating Co., Ltd., Hamilton, Ont.

COMPRESSORS, Air, High Pressure, Steam Power, Electric and Hydraulic Driven.

Canadian Ingersoll Rand Co., Ltd., Montreal, Que.
Canadian Pneumatic Tool Co. ,Ltd., Montreal, Que.
Canadian Westinghouse Co. Ltd., Hamilton, Ont.
Darling Bros., Ltd., Montreal, Que.

COMPRESSORS, Air and Steam.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Crescent Machine Co., Ltd., The, Montreal, Que.
General Fire Extinguisher Co., Montreal, Que.
Holden Co., Ltd., The, Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.

COMPRESSORS, Turbo.

Canadian Crocker-Wheeler Co., Ltd., The, St. Catharines, Ont.

CONCH, large shells, imported from the Bahamas chiefly, for the cutting of cameos and other ornaments.

CONCRETE, a coarse mortar mixed up with broken stones or bricks, slag, gravel, &c., of which foundations and walls are built. Portland cement concrete hardens under water, and therefore is used in the construction of piers and breakwaters. Asphalt, cast-iron turnings, and pitch have been used for backing armour plates.

CONDENSERS.

Canadian Allis-Chalmers, Ltd., Toronto.
Darling Bros., Ltd., Montreal, Que.
Goldie & McCulloch Co., Ltd., Galt, OOnt.
Hall Engineering Works, Ltd., Montreal, Que.
Inglis, The John, Company, Ltd., Toronto, Ont.
Kerr, J. & J., Co., Ltd., Petrolia, Ont.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Smart-Turner Machine Co., Ltd., Hamilton, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

CONDUITS, for Electric Wiring (Flexible).

Alphaduct Mfg. Co., Ltd., Toronto, Ont.
Canadian General Electric Co., Ltd., Toronto, Ont.
Conduits Co., Ltd., Toronto, Ont.
Flexible Conduit Co., Ltd., Guelph, Ont.

CONDUITS, Vitrified Clay.

Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.

CONDURANGO BARK, the bark of a plant of the family Asclepiadaceæ, which grows on the west slope of the Andes. It is used in dyeing.

CONFECTIONERS' SUPPLIES.

Canadian Cocoanut Co., Montreal, Que.
Cowan, John, & Co., Ltd., Montreal, Que.
Dunn, Wm. H., Ltd. Montreal, Que.

CONFECTIONERY, the preparation of foodstuffs, is as old as the human race, but it is only within the comparatively recent period that the art of confectionery (to construct, to form, to mingle or mix) has developed. The simplest form of confectionery, namely, the mixing of the flours of grains with certain other ingredients such as yeast, salt and other flavouring materials and allowing it to raise or ferment before baking, is not more than a few hundred years old and the other finer arts of confectionery, such as the making of biscuits, cakes and candies, is of much more recent date. In times when the preparation of foodstuffs meant little more than pounding up of the grains in a hole dug out in a hard wood stump, mixing the meal with water and baking the mixture, the business was a purely domestic industry. But as the process advanced, of separating the component parts of grains of flour, shorts, and bran and the industry of milling developed and particularly after the discovery of the fermentative qualities of these component parts, the art of baking gradually became a specialized industry and from small local factories, gradually developed into the larger factories where machinery is used for practically all the processes of mixing, kneading and baking. Many of these large establishments now employ specially trained chemists who analyse very carefully the qualities and characters of different materials used and all the work is done in a cleanly and thoroughly wholesome manner. The products of some of these large establishments are now being shipped over large areas and are gradually taking the place of domestic products. So important has this industry become, that in most every community of any size, there are to be found retail stores devoted entirely to the selling of bread, cakes, biscuits, candy, etc.

According to the last census there were in Canada 323 large establishments making bread, biscuits and confectionery. These gave employment to 10,003 wage-earners and salaried officials, and the value of the products amounted to $25,566,691. In addition there were 6 establishments producing candies and other articles made from chocolate and cocoa. These gave employment to 471 workmen and had an output valued at $1,193,486.

In the year ending with the 31st of March, 1914, the importations of confectionery of all kinds, bread, biscuits, breakfast foods, etc., were valued at $2,306,169.

CONFECTIONERY.

Abbott, Grant & Co., Ltd., Brockville, Ont.
Bean & Westlake, Woodstock, Ont.
Boyd, The, W. J. Co., Winnipeg, Man.
Bradshaws, Ltd., Toronto, Ont.
Coles, George, Ltd., Toronto, Ont.
Corona Co., Ltd., St. John, N.B.
Cowan Co., Ltd., The, Toronto, Ont.
Crescent Confectionery Co., Toronto, Ont.
Crothers, W. J. Co., Ltd., Kingston, Ont.
Dingle & Stewart, Winnipeg, Man.
Doerr, C. H. & Co., Berlin, Ont.

Dominion Biscuit Co., Ltd., Vancouver, B.C.
Ganong Bros., Ltd., St. Stephen, N.B.
Godin, J. N., Three Rivers, Que.
Hamilton, G. J. & Sons, Pictou, N.S.
Hamm Bros., St. John, N.B.
Jersey Cream Factories, Ltd., Hamilton, Ont.
Kootenay Jam Co., Ltd., The, Mission City, B.C.
Lauder, The Chas., Co., Toronto, Ont.
Leary, T. J., Ltd., Montreal, Que.
Lethbridge Chocolate and Candy Co., Lethbridge, Alta.
Lowney, The Walter M. Co., of Canada, Ltd., Montreal, Que.
Lynch's, Ltd., Sydney, N.S.
McConkey, George S., Toronto, Ont.
McCormick Mfg. Co., Ltd., The, London, Ont.
McGregor, Harris Co., Ltd., Toronto, Ont.
McKeown, Jas. H., Montreal, Que.
McLauchlan & Sons Co., Ltd., Owen Sound, Ont.
McWilliam, W. & Son, Quebec, Que.
Martineau, L. & Co., Montreal, Que.
Moirs, Ltd., Halifax, N.S.
Montreal Biscuit Co., Montreal, Que.
Mooney Biscuit & Candy Co., Ltd., Stratford, Ont,. Montreal, Quebec, and Winnipeg, Man.
Nasmith's, Ltd., Toronto, Ont.
National Biscuit & Confection Co., Ltd., Vancouver, B.C.
Neilson, Wm., Ltd., Toronto, Ont.
Patterson Candy Co., Toronto, Ont.
Paulin Chambers Co., Ltd., Winnipeg, Man.
Perrin, D. A. & Co., Ltd., London, Ont.
Popham Bros., Victoria, B.C.
Quaker Candy Co., Toronto, Ont.
Ramsay's, Ltd., Montreal, Que.
Robertson Bros., Ltd., The, Toronto, Ont.
Rochon's, Calgary, Alta.
Rowell, T. & Son, Sherbrooke, Que.
Sugars & Canners, Ltd., Montreal, Que.
Taylor, W. A., Winnipeg, Man.
Telfer Bros., Ltd., Collingwood, Ont.
United Drug Co., Ltd., Toronto, Ont.
Vanderlip, C., Winnipeg, Man.
Viau & Frere, Montreal, Que.
Wampole, Henry K. & Co., Ltd., Perth, Ont.
Watson, Robert, Co., Toronto, Ont.
Willards Chocolates, Ltd., Toronto, Ont.
Yeaton, George H. & Sons, Ltd., Hantsport, N.S.

CONNECTORS, Cable.

Crouse-Hinds Co., of Canada, Toronto, Ont.
Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

CONNESSI BARK, the bark of Wrightia antidysenterica, used as a febrifuge in India. The seeds also are collected.

BUILDERS & CONTRACTORS.

Ambursen Hydraulic Construction Co., of Canada, Ltd., Montreal.

CONTROLLERS, Electric, Crane, Elevator, Street Car.

Canadian Crocker-Wheeler Co., Ltd., The, St. Catharines, Ont.
Canadian General Electric Co., Ltd., Toronto, Ont.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Hinton Electric Co., Ltd., Vancouver, B.C.
Turnbull Elevator Mfg. Co., Toronto, Ont.
Turner, John, & Son, Toronto, Ont.

CONVERTERS, Rotary.

Canadian Crocker-Wheeler Co., Ltd., The, St. Catharines, Ont.
Canadian Westinghouse Co., Ltd, Hamilton, Ont.

CONVEYORS, Chain and Belt.

American Road Machine Co. of Canada, Ltd., Goderich, Ont.
Canadian Matthews Gravity Carrier Co., Ltd., Toronto, Ont.
Dodge Mfg. Co., Ltd., Toronto, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jeffrey Mfg. Co., Montreal, Que.
Miller Bros. & Sons, Ltd., Montreal, Que.
Perrin, W. R., & Co., Ltd., Toronto, Ont.
Williams & Wilson, Ltd., Montreal, Que.
Waterous Engine Works Co., Ltd., Brantford, Ont.

CONVEYORS, Coal and Ash.

Babcock and Wilcox, Ltd., Montreal, Que.
Jeffrey Mfg. Co., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
MacKinnon, Holmes Co., Ltd., Sherbrooke, Que.
Structural Steel Co., Ltd., Montreal, Que.
Waterous Engine Works Co., Ltd., Brantford, Ont.

CONVEYORS, Sawdust.

Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jeffrey Mfg. Co., Montreal, Que.
McLennan Foundry & Machine Works, Ltd., Campbellton, N.B.
Waterous Engine Works Co., Ltd., Brantford, Ont.

CONVEYORS, Spiral.

Canadian Mathews Gravity Carrier Co., Ltd., Toronto, Ont.
Dodge Mfg. Co., Ltd., Toronto, Ont.
Jeffrey Mfg. Co., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Waterous Engine Works Co., Ltd., Brantford,

COOKING APPARATUS, Electric.

Canadian Westinghouse Co., Ltd. Hamilton, Ont.
Hotpoint Electric Heating Co., Toronto, Ont.
National Electric Heating Co., Ltd., Toronto, Ont.

COLLERS, Beer and Cream.

Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Richardson, C., & Co., St. Mary's, Ont.

COOLERS, Candy.

Fletcher Mfg. Co., Ltd., Toronto, Ont.

COOLERS, Metal Furnace.

MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.
Sudbury Construction & Machinery Co., Ltd., The, Sudbury, Ont.

COOLERS, Water.

Davidson, The Thos. Mfg. Co., Ltd., Montreal, Que.
Fletcher Mfg. Co., Ltd., Toronto, Ont.
McClary Mfg. Co., London, Ont.
Perfection Cooler Co., Ltd., Toronto, Ont.
Prowse, Geo. R., Range Co., Ltd., Montreal, Que.
Sheet Metal Products Co., of Canada, Ltd., Toronto, Ont.

COOPERAGE STOCK. (See also Hoops and Staves).

Ainslie, J. S. & Bro., Comber, Ont.
British Columbia Cooperage & Jute Co., Vancouver, B.C.
Drader, Wm. M., Chatham, Ont.
Fesserton Timber Co., Ltd., The, Fesserton, Ont.
Hantsport Fruit Basket Co., Hantsport, N.S.
Hilyard Bros., St. John, N.B.
London & Petrolia Barrel Co., London, Ont.
Loggie, W. S. Co., Ltd., Chatham, N.B.
Manitoba Cooperage Co., Ltd., Winnipeg, Man.
Marmora Cooperage Co., Marmora, Ont.
McAllister, Geo., Bloomingdale, Ont.
Moore, John E., St. John, N.B.
Mueller, Charles, Waterloo, Ont.
Murray & Gregory, Ltd., St. John, N.B.
Randolph & Baker, Ltd., Randolph, N.B.
Ransford, John, Clinton, Ont.
Sutherland, Innes Co., Ltd., The, Chatham, Ont.
Trenton Cooperage Mills, Ltd., Trenton, Ont.
Wallaceburg Cooperage C.o, Ltd., Wallaceburg, Ont.
Zimmerman Bros., Tavistock, Ont.

COPAIVA, or Copaiba. The Copaifera, trees of the family of Cæsalpiniaceæ, grow in tropical America and Africa, and yield a valuable balsam consisting chiefly of resin and volatile oil. The balsam, a pale to dark-brown liquid, is used in medicine, having a marked action on the mucous membrane.

COPAL, a general term for resins derived from trees of several kinds. New Zealand has the copal of the Kauri pine. The harder kinds, such as those of Zanzibar and Mozambique, are the more valuable. **(See also ANIME.)**

COPALCHI BARK, an aromatic bark obtained from a shrub indigenous in Central America. It is weaker than cascarilla bark, and is used in Mexico as a substitute for quinine, for it contains a very small proportion of a bitter alkaloid somewhat resembling quinine.

COPING, Metal.

Metallic Roofing Co., of Canada, Ltd., The, Toronto, Ont.
Pedlar People, Ltd., The, Oshawa, Ont.

COPING, Wall.

Dominion Sewer Pipe Co., Ltd., Swansea, Ont.
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.

COPPER is a reddish metal, very tenacious, easily malleable and ductile. Being a good conductor of heat, it is used for fire boxes, and boiler pipes, and it is also one of the constituents of brass and various kinds of bronze and other alloys. As a conductor of electricity it is, when pure, second only to silver and hence its extensive use in electrical machinery, telegraph, telephone and power transmission wires. Electrotyping and engraving are other processes in which it is used. Of the salts, the best known is the sulphate, generally called blue vitriol, which substance is used in calico-printing, electrotyping and for destroying weeds. Copper arsenate is a green powder generally known as Scheele's green. The arsenite of copper is the parisgreen of commerce used as a poison for insects, bugs, etc., and also as a pigment for wall paper, artificial flowers, etc. Copper oxide gives a ruby-red colour to glass. Being easily worked and forming hard alloys, copper has been in use from remote ages.

The world's production of copper in 1913 amounted to 2,189,732,130 pounds. The countries contributing to this production were as follows:—

	Pounds.
United States	1,224,484,098
Japan	161,376,720
Spain and Portugal	120,591,620
Mexico	116,402,880
Australia	104,277,580
Chili	88,184,000
Canada	76,975,832
Russia	74,735,940
Peru	56,658,220
Germany	55,776,380
British South Africa.. ..	50,485,340
Norway	19,400,480

Canada's production of copper for 1913 was obtained from Quebec, principally the mines at Weeden, Que., 3,455,897 pounds. From Ontario, principally Sudbury district, 25,884,836 pounds. British Columbia, 45,791,579 pounds.

The importations of copper and manufactures of the metal into Canada during the fiscal year ending March 31st, 1914, were valued at $6,581,485, and the importations of brass and manufactures of this metal in the same year were valued at $4,415,202. The exports of copper from Canada during the same time were valued at $9,880,065.

COPPER MATTE.

Consolidated Mining & Smelting Co. of Canada, Ltd., Trail, B.C.
Granby Consolidated Mining, Smelting & Power Co., Ltd., Grand Forks, B.C.

COPPER NICKEL MATTE.

Canadian Copper Co., Copper Cliff, Ont.

COPPER ORES.

Britannia Mining and Smelting Co., Britannia Beach, B.C.
British Columbia Copper Co., Ltd., Greenwood, B.C.
Butte & Roche de Boule Copper Co., New Hazelton, B.C.
Consolidated, M. & S. Co., of Canada, Ltd., Trail, B.C.
East Canada Smelting Co., Weedon, Que.
Eustis Mining Co., Eustis, Que.
Granby Consolidated Mining, Smelting & Power Co., Ltd., Grand Forks, B.C.
Le Roi No. 2 Mining Co., Ltd., Rossland, B.C.
New Dominion Copper Co. Ltd., Greenwood, B.C.
Richmond Consolidated Mining Co., Rossland, B.C.
Silver King Mines, Ltd., Trail, B.C.
Tacoma Steel Co., Van Anda, B.C.

COPPER, Pig.

Frankel Bros., Toronto, Ont.

COPPER, Sheet and Plate.

Brown's Copper & Brass Rolling Mills, New Toronto, Ont.
Garth Co., The, Montreal, Que.
Mitchell, The Robt. Co., Ltd., Montreal, Que.

COPPER SULPHATE.

Consolidated Mining & Smelting Co. of Canada, Ltd., Trail, B.C.

COPPERWARE.

Davidson, The Thos., Mfg. Co., Ltd., Montreal, Que., and Winnipeg, Man.
Farquhar Bros., Ltd., Halifax, N.S.
Hughes, J. W., & Son, Montreal, Que.
McClary Mfg. Co., London, Ont.
Prowse, Geo. R., Range Co., Ltd., Montreal, Que.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.

COPPER WORK, for Bakers, Confectioners, Brewers, Distillers, Varnish Makers, Vinegar Manufacturers, Sugar Refiners, Wood Alcohol Manufacturers, Etc.

Allan, R. George, Toronto, Ont.
Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Collings, Wm. & Sons, Halifax, N.S.
Gardner, Robt., & Sons, Ltd., Montreal, Que.
Sydney Foundry & Machine Works, Ltd., Sydney, N.S.

COPPERAS, sulphate of iron in green crystals, also called green vitriol. It is used in dyeing and tanning and in the manufacture of ink.

COPPERAS.

Nicholas Chemical Co. of Canada, Ltd., Montreal, Que.

COPRA, the dried kernel of the coco-nut from which oil is expressed.

COPROLITES, the fossil excrement of extinct animals, containing a large proportion of phosphate of lime, and therefore valuable as manure.

COQUILLA NUTS, the fruits of a Brazilian palm made by turners into buttons and other small articles.

CORAL, the hard limy support of coral polyps manufactured into ornaments. The coral mostly used is the red coral which is fished up off the coasts of Naples, Sicily, Sardinia, Algeria and Tunis, and other parts of the Mediterranean. The most highly prized is the light pink coral. About 542,000 lbs. are obtained yearly off the Italian coasts. Italy has almost a monopoly of the manufacture.

CORALLINE, a red coloring matter produced by the action of oxalic acid on phenol in the presence of sulphuric acid.

CORD, Awning, Bell, Sash (Wire.)

Dominion Wire Rope Co., Ltd., Montreal, Que.

CORD, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
Gutta Percha & Rubber, Ltd., Toronto, Ont.

CORD, Wire (Electric Flexible.)

Canadian General Electric Co., Ltd., Toronto, Ont.
Phillips, Eugene F., Electrical Works, Ltd., Montreal, Que.
Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

CORDAGE, Cotton, Hemp and Jute.........

Consumers Cordage Co., Ltd., Montreal, Que.
Doon Twines, Ltd., Doon, Ont.
Gourock Ropework Export Co., Ltd., The, Montreal, Que.
Hamilton Cotton Co., Hamilton, Ont.
Shurly & Derrett, Ltd., Toronto, Ont.

CORDAGE, Linen and Flax.

Doon Twines, Ltd., Doon, Ont.
Shurly & Derrett, Ltd., Toronto, Ont.

CORDAGE, Manilla, Sisal and Hemp.

Brantford Cordage Co., Ltd., Brantford, Ont.
Canada Fibre & Cordage Co., Montreal, Que.
Consumers Cordage Co., Ltd., Montreal, Que.
Gourock Ropework Export Co., Ltd., The, Montreal, Que.
Plymouth Cordage Co., Welland, Ont.

CORDIALS, Fruit.

Dearborn & Co., Ltd., St. John, N.B.
St. Louis Preserving Co., Ltd., Montreal, Que.
Taylor & Tennant, Amherst, N.S.

CORDITE, a smokeless explosive used for cartridges. It is a mixture of nitro-glycerine, gun-cotton, and vaseline.

CORDS, TASSELS and FRINGES.

Gillies, A. J., Mfg. Co., Toronto, Ont.
Moulton Mfg. Co., Ltd., The, Montreal, Que.
Peters, J. Henry, Co., Toronto, Ont.
White-Allan Co. of Toronto, Ltd., The, Toronto, Ont.

CORDS, ENDS, and BRAIDS, Suspender.

Granby Elastic Web Co., Ltd., Granby, Que.
Hamilton Cotton Co., Hamilton, Ont.

CORE, Cable, Dry and Saturated.

Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

CORIANDER, the seeds of a plant of the Umbelliferæ order, which is found in Mediterranean lands and Asia, and is cultivated in Germany and England. They are sometimes used in medicine, but more largely as a spice, in liqueurs and confectionery.

CORK, the light inner bark of the cork oak, Quercus suber. The outer bark, virgin cork, is stripped off and used for net floats, boat-fenders, and other rough purposes, and also for the manufacture of Spanish Black, a charcoal used by painters. Ten or twelve years after the stripping the lighter valuable cork is ready for the market. The tree grows in the countries bordering the Mediterranean, from Greece to Morocco, and as far north as lat. 45 deg. in the neighborhood of Bordeaux.

CORK, Granulated.

Robinson Bros. Cork Co., Ltd., Toronto, Ont.

CORKBOARD INSULATION.

Kent Co., Ltd., The, Montreal, Que.
Robinson Bros. Cork Co., Ltd., Toronto, Ont.

CORKS. (See also Crown Corks.)

Canadian Cork Cutting Co., Montreal, Que.
Ewing, S. H., & Sons, Montreal, Que.
Freyseng Cork Co., Ltd., The, Toronto, Ont.
Robinson Bros. Cork Co., Ltd., Toronto, Ont.
Willson & Warden, Toronto, Ont.

CORNEL, or Cornelian cherry. The small tree Cornus mas is a native of middle and southern Europe. Its fruit, a small plum, is used in Turkey in making sherbet, and its wood is valued by turners and instrument makers.

CORN, sometimes called maize or Turkish wheat, is a cereal extensively grown, particularly in America. The original home of corn seems to have been Southern Asia, where it was extensively grown in very ancient times. It requires a high summer temperature, abundant moisture and a deep and rich soil. In Italy it is known as polenta and is eaten extensively. Coarsely ground, it forms the hominy of United States and Canada.

Pop-corn is a kind of corn parched over a quick fire and coated with syrup. Corn is not easily made into bread, owing to its deficiency of gluten, but johnnycakes and muffins made of it are favorite articles of food. The young ears, green corn, are eaten as a vegetable. It is used as fodder for horses, cattle, hogs, sheep and fowl. Starch is made from corn and this by the addition of acid is converted into glucose. The stocks are used sometimes in paper making. Another extensive use of corn is the making of malt for liquors.

The world's production of corn in 1913 was

3,613,213,000 bushels, to which production the following countries were the principal contributors:—

	Bushels.
United States	2,446,988,000
Argentine Republic	231,869,000
Mexico	190,000,000
Roumania	114,662,000
Italy	108,388,000
Russia	72,793,000
Egypt	57,044,000
Bulgaria	32,000,000
British South Africa	30,830,000
Spain	25,140,000
Servia	23,621,000
France	21,455,000
Canada	16,773,000

The Canadian importations of corn during the year ending March 31st, 1914, were as follows:—

Corn for Seed and Fodder	$3,950,934
Corn for Malt	740,768
Corn Meal	168,818
Corn Syrup	104,803
Corn Starch	104,690
Corn, cracked or dried	22,620
Total	$5,092,633

CORN BINDERS.

Frost & Wood Co., Ltd., Smith's Falls, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Noxon Co., Ltd., The, Ingersoll, Ont.

CORN MEAL, finely ground flour of corn.

CORNER BEAD, Plasterers' Metal.

Metal Shingle & Siding Co., Ltd., Preston, Ont.

CORNICE POLES.

Phillips Mfg. Co., Ltd., Toronto, Ont.

CORNICES, Galvanized Iron and Copper.

Capital Sheet Metal Works, Edmonton, Alta.
Galt Art Metal Co., Ltd., Galt, Ont.
Irwin, Thomas, & Son, Hamilton, Ont.
Metalic Ceilings and Sidings Co., Montreal.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Metallic Roofing Co. of Canada, Ltd., The, Toronto, Ont., and Winnipeg, Man.
Ormsby, A. B., Ltd., Toronto, Ont., and Winnipeg, Man.
Reed, Geo. W., & Co., Ltd., Montreal, Que.
Riddell, John E., & Son, Hamilton, Ont.
Sheet Metal Mfg. Co., Ltd., Calgary, Alta.
Stevely, W., & Son, London, Ont.
Wheeler & Bain, Toronto, Ont.
Wright, J. W., Winnipeg, Man.
Winnipeg Ceiling & Roofing Co., Winnipeg, Man.

COROMANDEL WOOD. (See **CALAMANDER WOOD.**)

COROZO NUTS. (See **VEGETABLE IVORY.**)

CORROSIVE SUBLIMATE, sub-chloride of mercury.

CORSETS.

Bias Corsets, Ltd., Toronto, Ont.
Brush & Co., Ltd., Toronto, Ont.
Crompton Corset Co., Ltd., Toronto, Ont.
Dominion Corset Co., Quebec, Que.
D. & A. Corset Co., Quebec, Que.
E. T. Corset Co., Ltd., The, St. Hyacinthe, Que.
Eaton, The T., Co., Ltd., Toronto, Ont.
Parisian Corset Mfg. Co., Ltd., Quebec, Que.
Spirella Co. of Canada, Ltd., The, Niagara Falls, Ont.

CORTICINE, a floor-cloth made of powdered cork and other material. (See **LINOLEUM.**)

CORUNDUM, alumina or aluminum oxide, a mineral only less hard than diamond. The clear varieties are sapphire, ruby, oriental amethyst or oriental topaz, according to their color. Rough corrundum mined in India and Canada is used as abrasive. The Indian production is very small, so that Canada produces all of the world's supply.

In 1912, the Canadian production amounted to 1,960 tons, valued at $239,091. The Canadian mines are situated in the Eastern part of Ontario. The production is practically confined to one company, namely, the Manufacturers Corundum Company, Limited.

CORUNDUM.

Carborundum Co., Niagara Falls, Ont.
Manufacturers Corundum Co., Ltd., Toronto, Ont.
Prescott Emery Wheel Co., Ltd., Prescott, Ont.

COSTUS, the root of a plant that grows in Kashmir, and is used as incense in perfumery, &c.

COTO BARK, a bark exported from Bolivia, the origin of which is unknown. It is reddish brown in colour, and smells somewhat like cardamom and cajeput oil. It is used as a medicine.

COTS.

Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Gale, Geo., & Sons, Waterville, Que.
Ham & Nott Co., Ltd., Brantford, Ont.
Ideal Bedding Co., Ltd., Toronto, Ont.
Ives Modern Bedstead Co., Ltd., Cornwall, Ont.
Krug Bros. Co., Ltd., Chesley, Ont.
McLeod Bros., Truro, N.S.
Meadows, Geo. B., Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Munro Steel & Wire Works, Ltd., Winnipeg, Man.
Ontario Spring Bed & Mattress Co., Ltd., London, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Standard Bedstead Co., Ltd., The, Victoriaville, Que.
Weisglass, S., Ltd., Montreal, Que.

COTTAGES, Portable, Fireproof.

Canadian Metal Shelter Co., Winnipeg, Man.
Winnipeg Steel Granary & Culvert Co., Ltd., Winnipeg, Man.

COTTAGES, Portable, Wooden.

Schultz Bros. Co., Ltd., The, Brantford, Ont.

COTTER PINS.

Dominion Chain Co., Ltd., Montreal, Que.
Steel Co. of Canada, Ltd., Montreal, Que.

COTTOLENE.

Fairbank, The N. K., Co., Ltd., Montreal, Que.

COTTON.—The cotton plant belongs to the family of Malvaceae, and grows in tropical and sub-tropical regions, flourishing up to lat. 37 deg., though it is cultivated successfully in a few countries still further north. The cotton plant demands a mean temperature of from 66 deg. to 77 deg. Very high temperatures and frost are alike injurious to it. It also requires a fair amount of moisture, both in the atmosphere and the soil, but not an excess. Sandy soils allow the rain to soak through them too quickly, and clayey soils are too impervious. The best kind is a deep loam. Sometimes the cotton plant attains to the dimensions of a tree, especially "Gossypium arboreum," which reaches 20 feet, and it will live for forty years, but it is generally cultivated as an annual or biennial, and therefore takes the form of a shrub. There are many varieties. To "G. Barbadense" belongs the sea island cotton of the United States, which is cultivated on the islands and low coasts of South Carolina, Georgia, and Florida, and also the cotton of Egypt. The upland cottons of the States have originated from "G. herbaceum" and "G. hirsutum," and in point of production this species is the most valuable. In South America is found the "G. Peruvianum" of Peru and Brazil. The short-stapled cottons of India are derived chiefly from "G. neglectum," "G. herbaceum," and "G. Wrightianum." Other species, or varieties are indigenous in Central Asia, Africa, etc., but in general they yield an inferior fibre. Slight differences of soil and climate produce variations in the character of the cotton, so that not fewer than one hundred and thirty kinds are counted in the United States alone. The flowers vary in color according to the species, being yellow, pink, brownish red, or purple. The pod has five cells in which are seeds covered with fibres, and are the cotton of commerce. They are composed of carbon, hydrogen, and oxygen, and are almost pure cellulose. They differ in length and diameter, those of sea island cotton being the longest and finest. The fibres of this cotton vary in length from 1.9 to 2.2 inches, and have an average diameter of 1-1262 inch. Indian cotton is short and brittle, the best, Bengal cotton, having a staple not exceeding 1.3 inches and a diameter of 1-1369 inch, while Madras cotton has very short straight fibres. Next to sea island, Egyptian cotton is the best, while Orleans cotton is very regular in staple. Though sea island cotton commands the highest price, stronger fibre of a medium staple (uplands cotton) is most in demand. When the seeds and fibre have been removed from the pods, the fibre is stripped from the seeds by machines called gins — the roller gin, Macarthy's gin, the saw gin of Eli Whitney, and others. Some short fibres still cling to the seeds (linters), and are removed by linting machines and made into wadding. The cotton is compressed by steam presses into bales of various weights, the American bale of upland cotton weighing on an average 515 lbs.; the Egyptian bale 700 lbs. the Indian about 400 lbs.; and the Brazilian 175 to 220 lbs. The American cylindrical bale, recently introduced, contains 420 to 430 lbs. Of late years the consumption of cotton in the factories of the world has been 16 to 19 million bales of 500 lbs. each, and much is being done to cultivate new fields, such as the Soudan, and extension work in India and Egypt. The United States crop amounts to between 12 and 15 million bales annually.

Great Britain is the leading cotton manufacturing country in the world, owning over half the world's total number of spindles. United States comes second, that country having developed enormously of late years. Germany, France, and Belgium are next, while the industry is growing rapidly in Japan, India and China of late years. A large part of the yarns from the spinning mills is woven at once into cloth. For some fancy cloths the yarn must be bleached and dyed beforehand. Calicoes are printed after they are woven. Another large part of the yarn is twisted into sewing cotton, and for the manufacture of lace and silk imitations the yarn is "gassed," that is, passed rapidly several times through the flame of a Bunsen burner, by which all the light loose fibres are burned off. Mercerization is a process of treating the cotton fibre. The fibre is steeped in caustic soda, which is afterwards removed by dilute sulphuric acid. The effect is to expand the fibres and increase their weight and strength, and to give the natural twist a regular spiral form. Mercerized cotton also possesses a greater affinity for certain dyes and mordants.

Besides the fibre, the seeds are a valuable product of the cotton plant. The oil expressed from them is used for making salad oil, butter, lard, soap, and phonograph cylinders. In southern Europe it is largely used instead of olive oil, or as an adulterant to the latter. The meal from the seeds and the hulls are an excellent food for cattle, and the latter furnish material for an excellent grade of paper. The fibre of the stalks has been made into sacking for cotton bales, and might also be manufactured into rugs and carpets.

There are 29 mills in Canada manufacturing cotton goods, consisting of medium grade cottons, ducks, tire fabrics, yarns, felts, etc. operating about 800,000 spindles. The annual importation of raw cotton is valued at approximately nine million dollars, while the total annual production of cotton goods in Canada is valued at approximately thirty million dollars. The imports of cotton goods into Canada are valued at approximately twenty-seven million dollars annually.

The concerns manufacturing cotton goods in Canada are, as follows:—

COTTON MANUFACTURERS

Dominion Textile Company, Ltd., Montreal, Que., operates 10 mills as follows:
- Hochelaga Branch, Hochelaga, Que.
- Mount Royal Branch, St. Henry, Que.
- Colonial Bleacheries, St. Henry, Que.
- St. Anne's Branch, Montreal, Que.
- Kingston Branch, Kingston, Ont.
- Magog Print Works, Magog, Que.
- Magog Branch, Magog, Que.
- Montmorency Branch, Montmorency, Que.
- Halifax Branch, Halifax, N.S.
- Moncton Branch, Moncton, N.B.

Canadian Cottons, Ltd., Montreal, Que., operates 6 mills as follows:
- Stormont Mill, Cornwall, Ont.
- Canada Mill, Cornwall, Ont.
- Dundas Mill, Cornwall, Ont.
- Ontario Mill, Hamilton, Ont.
- Gibson Mill, Marysville, N.B.
- St. Croix Mill, Milltown, N.B.

Montreal Cottons, Ltd., Valleyfield, Que.
Cornwall & York Cotton Co., St. Johns, N.B.—two mills.
Imperial Cotton Co., Ltd., Hamilton, Ont.
Hamilton Cotton Co., Ltd., Hamilton, Ont.
Eagle Spinning Co., Ltd., Hamilton, Ont.
Empire Cotton Co., Ltd., Welland, Ont.
Canadian-Connecticut Cotton Co., Ltd., Sherbrooke, Que.
Wabasso Cotton Co., Ltd., Three Rivers, Que.
St. Maurice Valley Cotton Co., Ltd., Three Rivers, Que.
Shawinigan Cotton Co., Ltd., Shawinigan, Que.
Cosmos Cotton Co., Ltd., Yarmouth, N.S.
Guelph Cotton Co., Ltd., Guelpn, Ont.
Slingsby Manufacturing Co., Brantford, Ont.

COTTON, Braids, Webbings, Lampwicks.

Hamilton Cotton Co., Ltd.

COTTON, Blankets.

Canadian Cottons, Ltd.
Montreal Cottons, Ltd.

COTTON, Cordage and Twines.

Hamilton Cotton Co., Ltd.
Brantford Cordage Co., Ltd., Brantford, Ont.
Consumers Cordage Co., Ltd., Montreal, Que.
Plymouth Cordage Co., Ltd., Welland, Ont.

COTTON, Cottonades & Denims.

Canadian Cottons, Ltd.
Cornwall & York Cotton Mills, Ltd.
Hamilton Cotton Company, Ltd.
Dominion Textile Company, Ltd.
Montreal Cottons, Ltd.
Wabasso Cotton, Co., Ltd.

COTTON, Colored.

Canadian Cottons, Ltd.
Montreal Cottons, Ltd.

COTTON, Cheese Cloth.

Dominion Textile Co., Ltd.

COTTON, Duck & Canvas.

Imperial Cotton Co., Ltd.
Cosmos Cotton, Co., Ltd.
Empire Cotton Co., Ltd.

COTTON, Flannelettes.

Dominion Textile Co., Ltd.
Canadian Cottons, Ltd.
Cornwall & York Cottons Mills, Ltd.

COTTON, Felts.

Cosmos Cotton Co., Ltd.

COTTON, Linings.

Dominion Textile Co., Ltd.
Montreal Cottons, Ltd.

COTTON, Plain & Fancy.

Dominion Textile Co., Ltd.
Canadian Cottons, Ltd.
Cornwall & York Cotton Mills, Ltd.
Wabasso Cotton Co., Ltd.
Montreal Cottons, Ltd.

COTTON, Prints.

Dominion Textile Co., Ltd.

COTTON, Shirtings, Tickings, Sheeting Awnings, Greys, Dress Goods, Ginghams, etc.

Dominion Textile Co., Ltd.
Canadian Cottons, Ltd.
Montreal Cottons, Ltd.
Wabasso Cotton Co., Ltd.

COTTON Thread.

Bell Thread Co., Ltd., Hamilton, Ont.
Belding, Paul, Corticelli, Ltd., Montreal, Que.
Threads, Limited, Montreal, Que.
J. & P. Coats, Montreal, Que.

COTTON, Tire Fabrics.

Canadian-Connecticut Cotton Mills, Ltd.

COTTON, Yarns.

Dominion Textile Co., Ltd.
Hamilton Cotton Co., Ltd.
Canadian Cottons, Ltd.
Montreal Cottons, Ltd.
St. Maurice Valley Cotton Co., Ltd.
Shawinigan Cotton Co., Ltd.
Guelph Cotton Co., Ltd.
Cornwall & York Cotton Mills, Ltd.
Eagle Spinning Mills, Ltd.

COTTON, Yarns (Mercerized).

Hamilton Cotton Co., Ltd.

COTTON WASTE, the refuse of the mill, strippings of the carding machnes, &c., which amount to 15 or 20 per cent. of the material worked. This refuse is used in the manufacture of counterpanes, common carpets, wadding, wicks, twine, &c.

COTTON, Waste.

Canada Wool Stock Co., Ltd., Dundas, Ont.
Montreal Cotton & Wool Waste Co., Ltd., Montreal, Que.

COTTONWOOD.—This is a somewhat loose term applied to three species of poplar, one of which grows in the Province of Quebec and the other two imported from United States. The wood is valued on account of its toughness and is largely used for vehicle body work. The importations from United States are largely of swamp cottonwood. **(See WOOD.)**

COUCHES.

Alaska Bedding Co., Ltd., Winnipeg, Man.
Alaska Feather & Down Co., Ltd., Montreal, Que.
Anchor Bedding Co., Ltd., Toronto, Ont.
Baetz Bros., & Co., Berlin, Ont.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Coombe, The F. E., Furniture Co., Ltd., Kincardine, Ont.
Dymond Colonial Co., Ltd., Strathroy, Ont.
Ellis Furniture Co., The, Ingersoll, Ont.
Fournier, Edouard, Montreal, Que.
Hachborn, Geo. H., & Co., Berlin, Ont.
Hibner Furniture Co., Ltd., Berlin, Ont.
Imperial Furniture Co., Toronto, Ont.
Imperial Rattan Co., Ltd., Stratford, Ont.
Knechtel Furniture Co., Ltd., Hanover, Ont.
Krug, The H., Furniture Co., Ltd., Berlin, Ont.
Montreal Upholstering Co., Montreal, Que.
Mundell, John C., & Co., Elora, Ont.
Schierholtz Furniture Co., Ltd., The, New Hamburg, Ont.
Snyder Bros. Upholstering Co., Ltd., Waterloo, Ont.
Waterloo Furniture Co., Ltd., Waterloo, Ont.
Weiglass, S., Ltd., Montreal, Que.

COUCHES, Folding.

Coombe, The F. E., Furniture Co., Kincardine, Ont.
Ferguson, John, & Sons, London, Ont.
Gale, Geo., & Sons, Waterville, Que., and Winnipeg, Man.
McLeod Bros., Truro, N.S.
Ontario Spring Bed & Mattress Co., Ltd., London, Ont.
Owen, Daveno Bed Co., Hespeler, Ont.
Rolland Freres, Montreal, Que.

Schierholtz Furniture Co., Ltd., The, New Hamburg, Ont.
Steel Furnishing Co., The, New Glasgow, N.S.
Tombyll Upholstering & Frame Mfg. Co., Ltd., Montreal, Que.
Waterloo Furniture Co., Ltd., Waterloo, Ont.
Weisglass, S., Ltd., Montreal, Que.

COUCHES, Steel.

Gold Medal Furniture Mfg. Co., Ltd., Toronto, Ont.

COUNTERS, Marble.

Fletcher Mfg. Co., Ltd., Toronto, Ont.

COUNTERS, Metal.

Garry Mfg. Co., Winnipeg, Man.
Office Specialty Mfg. Co., Ltd., Toronto, Ont.

COUNTERS, Wooden, Store.

Arnett Furniture, Ltd., Souris, Man.
Chappell Bros. & Co., Ltd., Sydney, N.S.
Coast Mfg. Co., Vancouver, B.C.
Fletcher Mfg. Co., Ltd., Toronto, Ont.
Globe Furniture Co., Ltd., The, Waterloo, Ont.
Hillock, John, & Co., Ltd., Toronto, Ont.
Pringle Co., The, Belleville, Ont.

COUNTERS, Revolution.

Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

COUPLERS, Automatic, Air and Steam.

Canadian Steel Foundries, Ltd., Montreal, Que.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.

COUPLERS, Car.

Canadian Steel Foundries, Ltd., Montreal, Que.
Holden Co., Ltd., The, Montreal, Que.

COUPLINGS, Clutch and Cut-off.

Canadian Bond Hanger & Coupling Co., Alexandria, Ont.
Dodge Mfg. Co., Ltd., Toronto, Ont.
Fleming, James, St. John, N.B.
Hamilton, Wm. C., Ltd., Peterborough, Ont.
International Engineering Works, Ltd., Montreal, Que.
Jones & Glassco, Montreal, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Miller Bros. & Sons, Ltd., Montreal, Que.
Waterous Engine Works Co., Ltd., Brantford, Ont.

COUPLINGS, Flanged.

Canadian Bond Hanger & Coupling Co., Alexandria, Ont.
Dart Union Co., Ltd., Toronto, Ont.
Hamilton, Wm. Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Miller Bros. & Sons, Ltd., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Mueller, H., Mfg. Co., Ltd., Sarnia, Ont.
Waterous Engine Works Co., Ltd, Brantford, Ont.

COUPLINGS, Hose.

Fleming, James, St. John, N.B.
Garth Co., The, Montreal, Que.
McAvity, T., & Sons, Ltd., St. John, N.B.
Mitchell, The Robt. Co., Ltd., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Wilson & Cousins, Toronto, Ont.

COUPLINGS, Metallic Hose.

Ontario Metal Products Co., Ltd., Toronto, Ont.

COUPLINGS, Pipe.

Canadian Tube & Iron Co., Ltd., Montreal, Que.
Steel Co. of Canada, Ltd., Montreal, Que.

COUPLINGS, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.

COVERINGS, Furniture.

Gold Medal Furniture Mfg. Co., Ltd., Toronto, Ont.
Hees, Geo. H., Son & Co. ,Ltd., Toronto, Ont.
Montreal Cottons, Ltd., Valleyfield, Que.

COVERINGS, Mattress.

Montreal Quilting Co., Ltd., Montreal, Que.

COVERINGS, Pipe and Boiler.

Asbestos Mfg. Co., Ltd., The, Montreal, Que.
Canadian Asbestos Co., Montreal, Que.
Canadian Flax Mills, Ltd., Guelph, Ont.
Canadian H. W. Johns-Manville Co., Ltd., The, Toronto, Ont.
Canadian Mineral Rubber Co., Ltd., Winnipeg, Man.
Douglas-Milligan, Ltd., Montreal, Que.
Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
Garlock Packing Co., The, Hamilton, Ont.
Hamilton Engine Packing Co., Hamilton, Ont.
Hilton, H., & Sons, Winnipeg, Man.
Paquette, The Jos., Co., Montreal, Que.

COVERS, Automobile.

American Auto Trimming Co., Ltd., Walkerville, Ont.
Cutten & Foster, Toronto, Ont.
MacDonald-Meerbeck, Ltd., Toronto, Ont.

COVERS, Auto Seat.

Auto Top & Supply Co., Ltd., Winnipeg, Man.
MacDonald-Meerbeck, Ltd., Toronto, Ont.

COVERS, Auto Tire.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Prest-O-Lite Co., The, Toronto, Ont.

COVERS, Barrel, Corrugated Paper.

Brown, D. F., Paper Box & Paper Co., Ltd., St. John, N.B.
Thompson & Norris Co., of Canada, Ltd., Niagara Falls, Ont.

COVERS, Horse, Salvage, Wagon and Stack.

Bromley & Hague, Ltd., Winnipeg, Man.
Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Creaser, J. F. Co., Ltd., La Have, N.S.
Dixon Mfg. Co., The, Calgary, Alta.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
Edmonton Tent & Mattress Co., Ltd., Edmonton, Alta.
Finnie & Murray, Winnipeg, Man.
Guelph Oiled Clothing Co., Ltd., The, Guelph, Ont.
Leckie, John, Ltd., Toronto, Ont.
May, J. & Co., Winnipeg, Man.
Merchants Awning Co., Ltd., Montreal, Que.
Montreal, Tent, Awning & Tarpaulin Co., Montreal, Que.
Pike, The D. Co., Ltd., Toronto, Ont.
Rudd, Geo. A. & Co., Ltd., Toronto, Ont.
Sonne, Thos., Sr., Montreal, Que.
Soper, Robert, Hamilton, Ont.
Tower Canadian, Ltd., Toronto, Ont.
Turner, J. J. & Sons, Peterborough, Ont.

COVERS, Table, Chenille.

Hamilton Cotton Co., Hamilton, Ont.
Hees, Geo. H., Sons & Co., Ltd., Toronto, Ont.
Montreal Cottons, Ltd., Valleyfield, Que.

COW-HAIR. (See HAIR.)

COW-HIDES. (See HIDES.)

COWRY, a large genus of Gasteropods. The money cowry is used in many parts of Southern Asia and Africa as a medium of exchange. The shells are also made into necklaces and other ornaments.

CRADLES, Children's.

Canada Furniture Mfrs., Woodstock, Ont.

CRADLES, Dolls'.

Gendron Mfg. Co., Ltd., Toronto, Ont.

CRADLES, Grain.

Dominion Snath Co., Ltd., Waterville, Que.

CRANES, Electric, Travelling and Jib.

Anderson, Geo., & Co., of Canada, Ltd., Montreal, Que.
Armstrong, H. J., Markdale, Ont.
Babcock & Wilcox, Ltd., Montreal, Que.
Beath, W. D., & Son, Ltd., Toronto, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Yale & Towns ,Ltd., St. Catharines, Ont.
Crescent Machine Co., Ltd., The, Montreal, Que.
Dominion Bridge Co., Ltd., Montreal, Que.
Hepburn, John T., Toronto, Ont.
International Marine Signal Co., Ltd., Ottawa, Ont.
Miller Bros. & Sons, Ltd., Montreal, Que.
Morris, The, Herbert, Crane & Hoist Co., Ltd., Toronto, Ont.
Northern Crane Works, Walkerville, Ont.
Pollard Mfg. Co., Ltd., Niagara Falls, Ont.
Smart-Turner Machine Co., Ltd., Hamilton, Ont.
Structural Steel Co., Ltd., Montreal, Que.

CRANES, Hand, Power and Jib.

Anderson, Geo., & Co., of Canada, Ltd., Montreal, Que.
Armstrong, H. J., Markdale, Ont.
Beath, W. D., & Son, Ltd., Toronto, Ont.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Dominion Bridge Co., Ltd., Montreal, Que.
Hall Engineering Works, The, Montreal, Que.
Hamilton Bridge Works Co., Ltd., The, Hamilton, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Hepburn, J. T., Toronto, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Marsh & Henthorn, Ltd., Belleville, Ont.
Miller Bros. & Sons, Ltd., Montreal, Que.
Northern Crane Works, Walkerville, Ont.
Pollard Mfg. Co., Ltd., Niagara Falls, Ont.
Smart-Turner Machine Co., Ltd., Hamilton, Ont.

CRANES, Steam.

Armstrong, H. J., Markdale, Ont.
Beatty, M., & Sons, Ltd., Welland, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
McNeil, Wm. P., & Co., New Glasgow, N.S.
Morris, The Herbert, Crane & Hoist Co., Ltd., Toronto, Ont.
Smart-Turner Machine Co., Ltd., Hamilton, Ont.

CRANKSHAFTS and CONNECTING RODS.

Canada Forge Co., Ltd., Welland, Ont.
Canadian Billings & Spencer, Ltd., Welland, Ont.
Muskoka Foundry Co., Bracebridge, Ont.

CRAPE, a thin gauze of silk tightly twisted. The chief kinds are English, French, and Chinese Crape. In soft crape the torsion is less than in the other kind. English crape is very solid, and has regular furrows produced by a roller with projecting lines. In Eastern crape the weft is composed of alternate threads twisted in opposite directions, and the material is made crisp by dipping it alternately in hot and cold water.

CRATES, Bottle.

Alberta Box Co., Ltd., Calgary, Alta.
Chappell Bros. & Co., Ltd., Sydney, N.S.

CRATES, Egg.

Alberta Box Co., Ltd., Calgary, Alta.
Czerwinski Box Co., Ltd., Winnipeg, Man.
Thomas Bros., Ltd., St. Thomas, Ont.
Woods, Walter, & Co., Hamilton, Ont.

CRATES, Fruit and Vegetable.

Alberta Box Co., Ltd., Calgary, Alta.
Barchard & Co., Ltd., Toronto, Ont.
British Columbia Mfg. Co., Ltd., New Westminster, B.C.
Dalton, J. W., Ltd., Grimsby, Ont.
Dominion Box and Package Co., Ltd., Montreal, Que.
Erie Basket Co., Ltd., Leamington, Ont.
Meyer-Thomas Co., Ltd., The, Montreal, Que.
Murray & Gregory, Ltd., St. John, N.B.
Pacific Box Co., Ltd., Vancouver, B.C.
Reid & Piott, Beamsville, Ont.
Rutherford, The Wm. Sons, Co., Ltd., Montreal, Que.

CRAYONS.

Globe Furniture Co., Ltd., The, Waterloo, Ont.

CRAYONS, Lumber.

Hughes Owens Co., Ltd., The, Montreal, Que.

CREAM, Evaporated.

Canadian Condensing Co., Ltd., Chesterville, Ont.
Charlottetown Condensed Milk Co., Ltd., The, Charlottetown, P.E.I.
Ewing, S. H., & Sons, Montreal, Que.

CREAM SEPARATORS.

Burrell, D. H., & Co., Brockville, Ont.
DeLaval Dairy Supply Co., Ltd., Peterborough, Ont.
Empire Cream Separator Co., Toronto, Ont.
DeLaval Mfg. Co., The, Peterborough, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
National Mfg. Co., Ltd., Ottawa, Ont.
Petrie Mfg. Co., Ltd., Hamilton, Ont.
Raymond Mfg. Co., of Guelph, Ltd., The, Guelph, Ont.
Renfrew Machinery Co., Ltd., The, Renfrew, Ont.

CREAM OF TARTAR, bitartrate of potash; prepared from impure bitartrate, or argol.

CREAM TARTAR.

Canadian Spice Mill, The, Quebec, Que.
Codville Co., Ltd., The, Winnipeg, Man.
Ewing, S. H., & Sons, Montreal, Que.
Herron-Le Blanc, Ltd., Montreal, Que.
Mott, John P., & Co., Halifax, N.S.
Puddington, Wetmore, Morrison, Ltd., St. John, N.B.
Schwartz, W. H., & Sons, Hilafax, N.S.
White Swan Spices & Cereals, Ltd., Toronto, Ont.

CREASOTE, an oily liquid obtained from wood or coal-tar. The more common article of commerce is made from the latter, and is used to preserve railway sleepers and other logs from decay. Wood creasote has a different composition. Creasote is also used in small quantities as a medicine.

CREOSOTE. (See also Oil, Creosote and Preservatives, Wood.

Carbon Oil Works, Ltd., The, Winnipeg, Man.
Dominion Chemical Co., Ltd., Sherbrooke, Que.
Dominion Tar & Chemical Co., Ltd., Montreal, Que.
Standard Chemical, Iron & Lumber Co. of Canada, Ltd., Toronto, Ont.

CREMATORIES, Garbage. (See also Burners, Refuse.)

Toronto Furnace & Crematory Co., Ltd., The, Toronto, Ont.

CRESTINGS, Iron.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Shipway Iron Bell & Wire Mfg. Co., Ltd., Toronto, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Toronto Hardware Mfg. Co., The, Toronto, Ont.
Winnipeg Wire & Iron Works, Winnipeg, Man.

CRESTINGS, Sheet Metal.

Metal Shingle & Siding Co., Ltd., Preston, Ont.
Metallic Roofing Co. of Canada, Ltd., The, Toronto, Ont.
Pedlar People, Ltd., The, Oshawa, Ont.

CRETONNE, a thick, strong twilled cotton fabric, printed in colours, and used for curtains and furniture covers. It is rarely calendered or glazed. The weft of the inferior qualities is composed of cotton waste.

CRIBS, Children's.

Ferguson, John, & Sons, London, Ont.
Ontario Spring Bed & Mattress Co., Ltd., London, Ont.
Quality Beds, Ltd., Welland, Ont.
Standard Bedding Co., Toronto, Ont.

CROCKERY.

Belleville Pottery Co., Belleville, Ont.

CROQUET SETS.

Taylor, Scott & Co., Ltd., Palmerston, Ont.

CROSS ARM BRACES.

Canada Steel Co., Ltd., Hamilton, Ont.
Steel Co. of Canada, Ltd., Montreal, Que.

CROSS ARMS.

Canadian General Electric Co., Ltd., Toronto, Ont.
Firstbrook Brothers, Ltd., Toronto, Ont.
Georgian Bay Shook Mills, Ltd., Midland, Ont.
Harrison, John, & Sons Co., Ltd., Owen Sound, Ont.
Lachute Shuttle Co., Ltd., Lachute Mills, Que.
Lindsley Bros. Co., The, Nakusp, B.C.
Marshall-Davis, Ltd., Dunnville, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Rathbun Co., The, Deseronto, Ont.
Rhodes, Curry Co., Ltd., Amherst, N.S.
Rutherford, The William, Sons Co., Ltd., Montreal, Que.

CROSS ARMS, Creosoted.

Dominion Creosoting Co., Ltd., South Vancouver, B.C.
Marshall-Davis, Ltd., Dunnville, Ont.

CROSS BARS, Buggy, Carriage and Wagon.

Ackland, D., & Son, Ltd., Winnipeg, Man.
Canada Wheel Works, Ltd., Merritton, Ont.
Canadian Handle Mfg. Co., Ltd., London, Ont.

CROSSINGS (Diamond), for Railways.

Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
Canadian Steel Coundries, Ltd., Montreal, Que.

CROTON, a genus of plants of the natural order Euphorbiaceæ. The seeds were formerly administered as a drastic purgative, but now the oil expressed from them is generally used for internal and external application.

CROWBARS.

Canada Axe & Harvest Tool Mfg. Co., Ltd., Montreal, Que.
Canadian Steel Foundries, Ltd., Montreal, Que.
Coghlin, B. J., Co., Ltd., Montreal, Que.
Cumming, J. W., & Son, Ltd., New Glasgow, N.S.
Miller Bros. & Sons, Ltd., Montreal, Que.
Welland Vale Mfg. Co., Ltd., The, St. Catharines, Ont.

CROWN CORKS.

Aluminum & Crown Stopper Co., Toronto, Ont.
Dominion Crown Cork Co., Ltd., Toronto, Ont.
Ewing, S. H., & Sons, Montreal, Que.
Willson & Warden, Toronto, Ont.

CROWN GLASS. (See GLASS.)

CRUCIBLES, pots in which minerals and metals are fused. They are made of fire-clay, graphite, iron, or platinum, and, for certain operations, of silver.

CRUCIBLES.

Hamilton Facing Mill Co., Ltd., The, Hamilton, Ont.

CRUCIBLES, Carbon.

Canadian National Carbon Co., Ltd., Toronto, Ont.

CRUSHERS, Coke and Coal.

Jeffrey Mfg. Co., Montreal, Que.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.

CRUSHERS, Grain, Roller.

Fleury's, J., Sons, Aurora, Ont.

CRUSHERS, Ice.

Fletcher Mfg. Co., Ltd., Toronto, Ont.

CRUSHERS, Ore and Rock.

American Road Machinery Co. of Canada, Ltd., Goderich, Ont.
Brown Machine Co., Ltd., New Glasgow, N.S.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Climax Good Roads Machinery Co., Ltd., Hamilton, Ont.
General Car & Machinery Works, Montmagny, Que.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jeffrey Mfg. Co., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Marsh & Henthorn, Ltd., Belleville, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Mussen's, Ltd., Montreal, Que.
Sorel Iron Works, Ltd., Sorel, Que.

CRYOLITE, fluoride of aluminium and sodium, a rare mineral, found in large quantities only near Ivigtut in Southern Greenland, and occurring sparingly in Colorado. It is a cheap source of alum and soda, carbonate and bicarbonate, and caustic soda, and is sometimes employed as a source of aluminium, but is now often mixed with bauxite simply as a flux. About 145,000 cubic feet of cryolite are exported annually from Greenland.

CUBEBS, the dried berries of Piper cubeba, a native of Java, Sumatra, and Southern Borneo, and also cultivated in the Antilles. The powdered berries are used as a stomachic, as well as the volatile oil they contain, which also enters into the composition of some throat lozenges.

CUDBEAR, a brownish-red powder made from archil paste, formerly extensively used by the dyer, in conjunction with logwood, fustic, and other dyestuffs, to produce delicate shades of purple.

CULILAWAN BARK, the bark of Cinnamomum culilawan, which grows in the Moluccas. It has an odour of cloves and nut-megs, and its oil is used in perfuming soap.

CULM, an impure anthracite. When obtained from the pits in a crumbling condition, it is often mixed with clay and formed into briquettes.

CULTIVATORS, Corn.

Bateman-Wilkinson Co., Ltd., Toronto, Ont.
Cockshutt Plow Co., Ltd., Brantford, Ont.
Frost & Wood Co., Ltd., The, Smith's Falls, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Noxon Co., Ltd., The, Ingersoll, Ont.
Oliver Chilled Plow Works of Canada, Ltd., Hamilton, Ont.
Tudhope-Anderson Co., Ltd., The, Orillia, Ont.
Verity Plow Co., Ltd., Brantford, Ont.
Vilas, W. F., Cowansville, Que.

CULVERTS, Concrete.

Dominion Glazed Cement Pipe Co., Ltd., Vancouver, B.C.

CULVERTS, Metal.

Canada Ingot Iron Culvert Co., Ltd., Guelph, Ont.
Canadian Corrugated Pipe Co., Ltd., Portage La Prairie, Man.
Corrugated Pipe Co., Ltd., The, Stratford, Ont.
Metallic Roofing Co. of Canada, Ltd., Winnipeg, Man.
Pedlar People, Ltd., The, Oshawa, Ont.
Standard Foundry & Machine Co., Ltd., Longueuil, Que.
Steel Trough & Machine Co., Ltd., The, Tweed, Ont.
Winnipeg Steel Granary & Culvert Co., Ltd., Winnipeg, Man.

CULVERTS, Vitrified Clay.

Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Standard Clay Products, Ltd., St. Johns, Que.

CUMMIN, or Cumin, a plant of the Umbelliferæ order, common in Egypt, Southern Europe, and India. The seeds are used by veterinary surgeons, and to flavor bread, cheese, &c.

CUMQUAT, the fruit of a small orange which is candied in China and exported in jars.

CUPREA BARK, the bark of trees of South America allied to the cinchona. The bark contains quinine.

CUPOLAS.

Hamilton Facing Mill Co., Ltd., Hamilton, Ont.
Northern Crane Works, Walkerville, Ont.
Sheldon's, Ltd., Galt, Ont.

CUPS, Force, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Co., Ltd., Toronto, Ont.
Gutta Percha & Rubber, Ltd., Toronto, Ont.

CURACOA, a liqueur, named after the West Indian island, but now made in Amsterdam by distillation from the dried peel of small unripe oranges.

CURBING, Granite.

Argenteuil Granite Co., Ltd., Montreal, Que.
Patterson & Chandler, Vancouver, B.C.
Stanstead Granite Quarries Co., Ltd., Beebe, Que.

CURBING, Vitrified.

Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.

CURBING, Well, Corrugated.

Canadian Corrugated Pipe Co., Ltd., Portage La Prairie, Man.
Winnipeg Steel Granary & Culvert Co., Ltd., Winnipeg, Man.

CURBS, Concrete Silo.

Ideal Concrete Machinery Co., Ltd. London, Ont.
London Concrete Machinery Co., Ltd., London, Ont.

CURRANTS, the name is given not only to the ordinary garden currant but also to a small seedless fruit of the vine, cultivated chiefly in Greece and the Ionian islands, being a corruption of the name of the town, Corinth. Currants are exported in a dried state. The exports from Greece are about 110,000 tons annually.

CUSTARD APPLE, the fruit of several species of Anona, which grow in the tropics, and are very delicious.

CURTAIN RODS (Extension), Brass.

Newell Mfg. Co., The, Prescott, Ont.

CURTAINS, Asbestos.

Asbestos Mfg. Co., Ltd., The, Montreal, Que.

CURTAINS, Chenille.

Hamilton Cotton Co., Hamilton, Ont.

CURTAINS, Lace.

Cooper, The H. S., Co., Toronto, Ont.
Hees, George H., Son Co., Ltd., Toronto, Ont.
Neckwear & Fancy Goods Co., Ltd., The, St. John, N.B.
Prime & Rankin, Toronto, Ont.

CURTAINS, Rubber, Shower Bath, Etc.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.

CURTAINS, Tapestry.

Dominion Hammock Mfg. Co., Ltd., Dunnville, Ont.
Hees, George H., Son, Co., Ltd., Toronto, Ont.
Montreal Cottons, Ltd., Valleyfield, Que.

CURTAINS, Theatre, Railway Car, Etc.

Holden Co., Ltd., The, Montreal, Que.
Soper, Robert, Hamilton, Ont.

CUSHION FORMS and TOPS, Pin.

Boyd, Brumell Co., Ltd., The, Toronto, Ont.

CUSHIONS.

Canadian Feather & Mattress Co., Ltd., Toronto, Ont.
Harvey, B. F., Co., Ltd., Toronto, Ont.
Kindel Bed Co., Ltd., The, Toronto, Ont.
Toronto Feather & Down Co., Ltd., Toronto, Ont.
Whitworth & Restall, Toronto, Ont.

CUSHIONS, Boat and Canoe.

Auto Top & Body Co., Ltd., Toronto, Ont.
Auto Top & Supply Co., Ltd., Winnipeg, Man.
Conboy Carriage Co., Ltd., Toronto, Ont.
Merchants Awning Co., Ltd., Montreal, Que.
Soper, Robert, Hamilton, Ont.
Turner, J. J., & Sons, Peterborough, Ont.

CUSHIONS, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Walpole Rubber Co., Ltd., Montreal, Que.

CUSPIDORS, Brass.

Edmunds, J. H., & Co., Toronto, Ont.
Garth Co., The, Montreal, Que.
Hamilton Brass Mfg. Co., Ltd., Hamilton, Ont.
Mitchell, The Robert, Co., Ltd., Montreal, Que.
Tallman Brass & Metal Co., Hamilton, Ont.

CUTCH, the juice of Acacia catechu and A. suma, thickened by boiling. It is a very permanent colouring material, and is used in dyeing black, brown, drab, &c. Areca palm nuts yield an extract somewhat resembling true cutch, but of inferior quality.

CUTLERY.—Under this name are included knives, forks, scissors, razors, surgical instruments, &c. In England, Sheffield is the great centre of manufacture.

CUTLERY.

Auto-Strop Safety Razor Co., Ltd., Toronto, Ont.
McGlashan, Clarke Co., Ltd., Niagara Falls, Ont.
Meriden Britannia Co., Hamilton, Ont.
Rogers, The William, Mfg. Co., Ltd., Niagara Falls, Ont.
Toronto Silver Plate Co., Ltd., The, Toronto.

CUT-OUTS, Electric.

Canadian General Electric Co., Ltd., Toronto, Ont.
Canadian Westinghouse Co., Ltd. Hamilton, Ont.
Monarch Electric Co., Ltd., St. Lambert, Que.
Munderloh & Co., Ltd., Montreal, Que.

CUTTERS, Bone.

Lee Mfg. Co., Ltd., Pembroke, Ont.
London Foundry Co., Ltd., The, London, Ont.
Thompson Mfg. Co., Ltd., Grand Bay, N.B.

CUTTERS, Glass.

Decbul Tools, Ltd., Montreal, Que.

CUTTERS, Milling.

Canada Tool & Specialty Co., Ltd., New Glasgow, N.S.
Hamilton Tool Co., Ltd., The, Hamilton, Ont.
Pratt & Whitney Co., of Canada, Ltd., Dundas, Ont.
Stevens Co. of Galt, Ltd., The, Galt, Ont.

CUTTERS, Potato, Seed.

Aspinwall Mfg. Co., Guelph, Ont.
Canadian Potato Machinery Co., Ltd., Galt, Ont.

CUTTERS, Tobacco.

Taylor-Forbes Co., Ltd., Guelph, Ont.

CUTTERS (Vehicles.)

Barrie Carriage Co., Ltd., Barrie, Ont.
Brantford Carriage Co., Ltd., Brantford, Ont.
Brown, S., Toronto, Ont.
Granby Carriage Co., The, Granby, Que.
Gray-Sons-Campbell, The William, Ltd., Chatham, Ont.
Latour & Frere, Lesage, Que.
McLaughlin Carriage Co., Ltd., Oshawa, Ont.
McKie Buggy Co., Plattsville, Ont.
Mount Forest Carriage Co., Ltd., Mount Forest, Ont.
Munro & McIntosh Carriage Co., Ltd., Alexandria, Ont.
Tudhope Carriage Co., Ltd., Orillia, Ont.
Whitaker, William, & Sons, Oakville, Ont.

CUTTERS AND SLICERS, Root and Vegetable. (See also Pulpers, Root.)

Bell, B., & Son Co., Ltd., St. George, Ont.
Eureka Planter Co., Ltd., The, Woodstock, Ont.
Fleury's, J., Sons, Aurora, Ont.
Maxwell, David, & Sons, St. Mary's, Ont.
Moody, The Matthew, & Sons Co., Terrebonne, Que.
Tolton Bros., Ltd., Guelph, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.

CUTTING, with Acetylene.

Compressed Gas Co., Ltd., Vancouver, B.C.
Franco-Canadian Welding Co., Toronto, Ont.
L'Air Liquide Society, Montreal, Que.

CUTTLEFISH.—This cuttlefish is caught for the sake of its spoon-shaped dorsal bone, which is ground up into tooth powder, and a hollow gland containing a dark-brown liquid from which the pigment sepia is prepared.

CYLINDERS, Brass and Copper.

Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
McDougall, R., Co., Ltd., The, Galt, Ont.

CYLINDERS, Brass-lined.

Jenckes Machine Co., Ltd., Sherbrooke, Que.
McDougall, The R., Co., Ltd., Galt, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Waterous Engine Works Co., Ltd., The, Brantford, Ont.

CYLINDERS, for Cotton Mills and Dyers.

Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.

CYLINDERS, Engine.

Canada Iron Corporation, Ltd., Montreal, Que.
Drolet, F. X., Quebec, Que.
Fleming, James, St. John, N.B.
Hamilton, William, Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Leonard, E., & Sons, London, Ont.
Miller Bros. & Sons, Ltd., Montreal, Que.
Smart-Turner Machine Co., Ltd., Brantford, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

CYLINDERS, Lock.

Canadian Yale & Towns, Ltd., St. Catharines, Ont.

CYLINDERS, Pump (Brass, Iron and Porcelain.)

Hamilton, Wm., Co., Ltd., Peterborough, Ont.
McDougall, R., Co., Ltd., Galt, Ont.
Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.

CYLINDERS, Soda Water.

Fletcher Mfg. Co., Ltd., Toronto, Ont.

CYPRESS.—Canadian Jack Pine is sometimes called "Cypress," but practically all this wood used in Canada is the bald cypress from the Southern States. It is a swamp tree, very slow of growth, light, and soft, with a straight grain and fine texture. It is used wherever contact with moisture is liable to cause decay and outlasts all the native woods in such situations. About 5,000,000 feet are annually imported, half of which is used in building construction, and the balance in laundry accessories, tanks, and vats. **(See WOOD.)**

D

DAIRY PRODUCTS.—Denmark, Russia, Holland, Sweden and New Zealand are the chief butter exporting countries of the world in the order named. Canada holds first place as a cheese exporting country with France, Switzerland, Italy, United States and Holland next in the order named. Russia is the world's greatest exporter of eggs with Austria-Hungary, Italy, Denmark next in the order named. The annual exports of eggs from Russia average about 300,000,000 dozen. Canada has a comparatively large population of milch cows and the dairying industry is one of the principal features of agriculture in the Eastern Provinces. Through lack of a more general system of agricultural co-operation in the production and marketing of farm commodities, however, the Dominion does not stand as high in the production of dairy products as it could be made to. In 1910 the total production of mlik amounted to 9,806,741,348 pounds, of which 2,236,663,687 pounds were exported. In that year the production of home-made butter amounted to 137,110,200 pounds, and of factory-made to 64,489,398 pounds. The production of cheese, home-made, amounted to 1,371,092 pounds and of factory-made to 199,904,205 pounds. In that year there were 3,635 butter and cheese factories in Canada, representing a capital of $8,747,558. These factories were distributed among the provinces as follows: Alberta, 56; British Columbia, 8; Manitoba, 42; New Brunswick, 42; Nova Scotia, 16; Ontario, 1,248; Prince Edward Island, 44; Quebec, 2,142; Saskatchewan, 27. The exports of butter from Canada during the fiscal year 1910 amounted to 4,615,380 pounds valued at $1,010,274, and of cheese during the same year to 180,859,886 pounds, valued at $21,607,692.

The Canadian butter production is inadequate to fill domestic needs, for although a quantity is exported annually the imports greatly exceed the exports. During the fiscal year 1914 the exports of butter from Canada amounted to 1,352,875 pounds valued at $342,953, and the imports to 7,317,259 pounds valued at $1,823,994. Over ninety per cent. of the imports in that year was from New Zealand. The annual imports of cheese are also considerable but are of a quality not produced in Canada. In 1914 these imports amounted to 1,512,108 pounds, valued at $299,223. **(See CHEESE and EGGS.)**

DAIRY SUPPLIES.

Burrell, D. H., & Co., Brockville, Ont.
De Laval Dairy Supply Co., Ltd., Peterborough, Ont.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Petrie Mfg. Co., Ltd., Hamilton, Ont.
Richardson, C., & Co., St. Mary's, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Steel Trough & Machine Co., Ltd., The, Tweed, Ont.

DAMASK, a material generally of one colour, in which the design is produced by a difference in the finish of the threads of the warp and the weft. Damasks are made of silk, woollen, and cotton, or from a mixture of two of these materials. They are used for dresses, furniture covers, and table-linen. They originated in the city of Damascus, whence their name, but are now manufactured chiefly in Great Britain, France, and Germany.

DAMIANA, the leaves of a plant which are used in Mexico as a nerve stimulant and infused like tea. Of late they have found their way into Europe.

DAMMAR, the Dammar pines are natives of the East and Australasia. These trees exude a resin valuable in the preparation of varnishes.

DAMS.

Ambursen Hydraulic Construction Co. of Canada, Ltd., Montreal.

DAMPERS, Stove Pipe.

Gurney Foundry Co., Ltd., Toronto, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Stewart, The James, Mfg. Co., Ltd., Woodstock, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.

DARI. (See DURRA.)

DARNERS, Hosiery.

Canada Last Co., Ltd., The, Toronto, Ont.

DATE, the most important date palm, grows in North Africa, south-western Asia, and south Europe. The best dates come from Tafilet in Morocco. Palm wine is made from the sap, and the buds are eaten as a vegetable. The seeds are roasted and used as a substitute for coffee, and oil is extracted from them. The leaf stalks are made into basket work, and the leaves themselves into mats and bags. The toddy palm of India is very similar and may be merely a variety. It yields arrack and sugar (jaggery). Other species grow in South Africa and Sierra Leone.

DATE PLUMS, the edible fruits of various species of Ebenaceæ, which also furnish ebony, ironood, and other valuable timbers. The common date plum resembles a black cherry, and grows in Transcaucasia and North Africa, and as a cultivated tree in Southern Europe.

DATURA. (See THORNAPPLE.)

DAVENPORTS.

Anchor Bedding Co., Ltd., Toronto, Ont.
Coombe, The F. E., Furniture Co., Kincardine, Ont.
Imperial Rattan Co., Ltd., Stratford, Ont.
Kindel Bed Co., Ltd., Toronto, Ont.
Montreal Upholstering Co., The, Montreal, Que.
Ontario Spring Bed & Mattress Co., Ltd., London, Ont.
Owen Daveno Bed Co., Hespeler, Ont.
Rolland Freres, Montreal, Que.
Tombyll Upholstering & Frame Mfg. Co., Ltd., Montreal, Que.
Waterloo Furniture Co., Ltd., Waterloo, Ont.
Weisglass, S., Ltd., Montreal, Que.

DECCAN HEMP, the fibre of a plant, a native of India. Though not so strong and durable as true hemp, it makes good ropes and coarse fabrics. Also called Indian Hemp.

DEER. (See HORNS and HIDES.)

DEER-TONGUE LEAVES, the leaves of a plant, a native of Carolina, which are often used as a substitute for tonka beans in flavoring tobacco.

DENIMS.

Canadian Cottons, Ltd., Montreal, Que.
Cornwall & York Cotton Mills Co., Ltd., St. John, N.B.

DENTAL APPLIANCES.

National Dental Mfg. Co., Ltd., Toronto, Ont.
National Refining Co., Ltd., Toronto, Ont.

DEODAR. (See CEDAR.)

DERRICKS.

Anderson, George & Co., of Canada, Ltd., Montreal, Que.
Beatty, M. & Sons, Ltd., Welland, Ont.
Calgary Iron Works, Ltd., The, Calgary, Alta.
Hamilton Bridge Works Co., Ltd., The, Hamilton, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Hepburn, John T., Toronto, Ont.
Ideal Concrete Machinery Co., Ltd. London, Ont.
International Marine Signal Co., Ltd., Ottawa, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
London Concrete Machinery Co., Ltd., London, Ont.
Marine Iron Works, Victoria, B.C.
Marsh & Henthorn, Ltd., Belleville, Ont.
McOuat, T. & Son, Lachute Mills, Que.
Miller Bros., & Sons, Ltd., Montreal, Que.
Mussens, Ltd., Montreal, Que.
Pollard Mfg. Co., Ltd., Niagara Falls, Ont.
Smart-Turner Machine Co., Ltd., Montreal, Que.

DESKS, Office (Standing and Flat Top.)

Baird Bros., Plattsville, Ont.
Berlin Interior Hardwood Co., Ltd., Berlin, Ont.
Beverley Wood Specialty Co., Ltd., Toronto, Ont.
Canada Furniture Mfg., Ltd., Woodstock, Ont.
Canadian Office & School Furniture Co., Ltd., The, Preston, Ont.
Coast Manufacturing Co., Vancouver, B.C.
Dominion Furniture Mfg. Co., Ltd., Ste. Therese, Que.
Elmira Interior Woodwork Co., Ltd., The, Elmira, Ont.
Ferguson, John & Sons, London, Ont.
Globe Furniture Co., Ltd., The, Waterloo, Ont.
Globe-Wernicke Co., Ltd., Stratford, Ont.
Kilgour, J., W. & Bro., Ltd., Beauharnois, Que.
Knechtel Furniture Co., Ltd., Hanover, Ont.
Labbe, Geo. H. & Co., Montreal, Que.
Labelle, H. P. & Cie, Limitee, Montreal, Que.
Library Bureau of Canada, Ltd., Ottawa, Ont.
Lindsay Library & Office Fitting Co., Ltd., Lindsay, Ont.
Malcolm, The Andrew, Furniture Co., Ltd., Kincardine, Ont.
Markdale Furniture Co., Ltd., The, Markdale, Ont.
Office Specialty Mfg. Co., Ltd., Toronto, Ont.
Oshawa Interior Fittings Co., Oshawa, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Preston Furniture Co., Ltd., Preston, Ont.
St. John Desk and Show Case Co., St. John, N.B.
St. Lawrence Furniture Co., River du Loup, Que.
Snider, J.B., Waterloo, Ont.
Stratford Desks, Ltd., Stratford, Ont.

DESKS, Roll Top.

Baird Bros., Plattsville, Ont.
Berlin Interior Hardwood Co., Ltd., Berlin, Ont.
Canada Furniture Mfg., Ltd., Woodstock, Ont.
Canadian Office & School Furniture Co., Ltd., The, Preston, Ont.
Kilgour, J. W., & Bro., Ltd., Beauharnois, Que.
Knechtel Furniture Co., Ltd., Hanover, Ont.
Krug Bros. Co., Ltd., Chesley, Ont.
Labbe, Geo. H., & Co., Montreal, Que.
Labelle, H. P., & Cie., Limitee, Montreal, Que.
Library Bureau of Canada, Ltd., Ottawa, Ont.
Office Specialty Mfg. Co., Ltd., Toronto, Ont.
Preston Furniture Co., Ltd., The Preston, Ont.
St. Lawrence Furniture Co., Riviere du Loup, Que.
Snider, J. B., Waterloo, Ont.
Stratford Desks, Ltd., Stratford, Ont.

DESKS, School.

Canadian Office & School Furniture Co., Ltd., The, Preston, Ont.
Fabien, C. P., Montreal, Que.
Globe Furniture Co., Ltd., The, Waterloo, Ont.
Paquet & Dodbout, St. Hyacinthe, Que.
St. Lawrence Furniture Co., Riviere du Loup, Que.
Snider, J. B., Waterloo, Ont.
Spencer Bros. & Turner, Ltd., Truro, N.S.
Vilas, W. F., Cowansville, Que.

DESKS, Typewriter.

Berlin Interior Hardwood Co., Ltd., Berlin, Ont.
Canadian Office & School Furniture Co., Ltd., The, Preston, Ont.
Globe-Wernicke Co., Ltd., Stratford, Ont.
Library Bureau of Canada, Ltd., Ottawa, Ont.
Office Specialty Mfg. Co., Ltd., Toronto, Ont.
Preston Furniture Co., Ltd., The, Preston, Ont.
Snider, J. B., Waterloo, Ont.
Stratford Desks, Ltd., Stratford, Ont.

DETONATORS.

Canadian Explosives, Ltd., Montreal, Que.

DEXTRINE, starch mixed with dilute acids and heated to about 200 degrees, becomes soluble in hot and cold water, and loses its gelatinous character. It is then called dextrine or British gum, and is used to stiffen textiles, gum envelopes, etc.

DIAMONDS, crystallised carbon, generally of an octohedral form. Diamonds are found in clay and gravel deposits, and during the past thirty years large numbers have been obtained in South Africa. India, formerly famous for diamonds, now yields very few. Brazil and British Guiana also furnish stones. The value of the stones depends on their brilliancy and color, the yellow and other tinted stones being less valuable than the pure white. The Russian Orloff diamond weighs 193 carats, and the Koh-i-nur is noted for its brilliancy and purity. The largest diamond known is the Cullinan diamond, discovered in 1905 at the Premier mine, Transvaal. When uncut it weighed 3,025¾ carats, or more than 20 oz., and it is of very fine quality. Bort occurs in rounded forms, and has a confused crystalline structure. Carbonado, or black diamond, is as hard or harder than the other kinds, and is much used for industrial purposes, and the price has risen of late years to as high as that of the white diamond. It is used for facing rock-drills and cutting wheels and for wire-drawing. Brazil is the chief source of this variety. The largest black diamond found in 1895 weighed 3,150 carats.

DIAPHRAGMS, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
Gutta Percha & Rubber, Ltd., Toronto, Ont.

DIES.

Armstrong Bros., Toronto, Ont.
Armstrong, Mervin, Toronto, Ont.
Banfield, W. H., & Son, Toronto, Ont.
Barnard, H., Co., Ltd., Hamilton, Ont.
Bawden Machine Co., Ltd., Toronto, Ont.
Brown, Boggs Co., Ltd., The, Hamilton, Ont.
Butterfield & Co., Rock Island, Que.
Canada Tool & Specialty Co., Ltd., New Glasgow, N.S.
Electric Meter & Stamping Co., Ltd., The, New Hamburg, Ont.
Elliot, W. A., Toronto, Ont.
Fairgrieve Metal & Stamping Co., Toronto, Ont.
Gardner, Robt., & Son, Ltd., Montreal, Que.
Hall Machine Works, Vancouver, B.C.
Hamilton Gear Co., The, Toronto, Ont.
Hamilton Stamp & Stencil Works, Ltd., Hamilton, Ont.
Letson & Burpe, Ltd., Vancouver, B.C.
Modern Machine & Electrical Works, Toronto, Ont.
Montreal Stencil Works, Montreal, Que.
Morrison, The J. L., Co., Toronto, Ont.
Ottawa Photo Engraving Co., Ottawa, Ont.
Peterborough Machine & Lubricator Co., Ltd., Peterborough, Ont.
Pratt & Whitney Co. of Canada, Ltd., Dundas, Ont.
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
Rolph & Clark, Ltd., Toronto, Ont.
Scully, Wm., Montreal, Que.
Superior Mfg. Co., Ltd., Toronto, Ont.
Turner, John, & Son, Toronto, Ont.
Westport Mfg. & Plating Co., Ltd., The, Westport, Ont.

DIES, Bolt Threading, Pipe Threading and Cutting.

Armstrong, Mervin, Toronto, Ont.
Banfield, W. H., & Sons, Toronto, Ont.
Butterfield & Co., Rock Island, Que.
Canadian Tap & Die Co., Ltd., The, Galt, Ont.
Hall, John H., & Sons, Ltd., Brantford, Ont.
Invincible Renovator Mfg. Co., Ltd., Toronto, Ont.
Jardine, A. B., & Co., Hespeler, Ont.
Pratt & Whitney Co., of Canada, Ltd., Dundas, Ont.

DIES, Cutting, Leather, Paper, Rubber, Etc.

Cleland, James, Montreal, Que.
Dominion Die Co., Montreal, Que.

DIES, Embossing.

Patterson & Heward, Toronto, Ont.
Toronto Stamp & Stencil Works, Ltd., Toronto, Ont.

DIES, Sheet Metal.

Acme Stamping & Tool Works, Ltd., Hamilton, Ont.

DIES AND TYPE, Brass, (Wood Printing).

Barnard, H., Co., Ltd., Hamilton, Ont.
Hamilton Stamp & Stencil Works, Ltd., Hamilton, Ont.
Patterson & Heward, Toronto, Ont.

DIGESTERS, Pulp.

Jenckes Machine Co., Ltd., Sherbrooke, Que.
Leonard, E., & Sons, London, Ont.
Polson Iron Works, Ltd., Toronto, Ont.
Waterus Engine Works Co., Ltd .,Brantford, Ont.

DIGGERS, Post Hole.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Warren Axe & Tool Co., Ltd., St. Catharines, Ont.
Lamb, H. R., Fence Co., Ltd., London, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Page Wire Fence Co., Ltd., Walkerville, Ont.

DIGGERS, Potato.

Aspinwall Mfg. Co., Guelph, Ont.
Bateman-Wilkinson Co., Ltd., Toronto, Ont.
Canadian Potato Machinery Co., Ltd., The, Galt, Ont.
Moody, The Matthew, & Sons Co., Terrebonne, Que.

DIKAMALI, a fragrant gum resin obtained in India from Gardenia lucida, and used medicinally.

DILL, an annual, or biennial, plant which grows wild around the Mediterranean. The seeds are used as a spice and in medicine.

DIMITY, a stout figured cotton fabric with raised strips, on which a pattern is sometimes printed.

DIRECTORIES.

Henderson Directories, Ltd., Winnipeg, Man.
Lovell, John & Sons, Ltd., Montreal, Que.
McAlpine Publishing Co., Ltd., Halifax, N.S.
Might Directories, Ltd., Toronto, Ont.

DISC HARROWS.

Bailey-Underwood Co., Ltd., New Glasgow, N.S.
Belanger, A., Montmagny, Que.
Bell, B., & Son Co., Ltd., St. George, Ont.
Cockshutt Plow Co., Ltd., Brantford, Ont.
Cossitt Co., Ltd., The, Brockville, Ont.
Dore, J. B., & Fils, Montreal, Que.
Frost & Wood Co., Ltd., The, Smith's Falls, Ont.
International Harvester Co. of Canada, Ltd., Hamilton, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Maxwell, David, & Sons, S.t Mary's, Ont.
Moody, The Matthew, & Sons Co., Terrebonne, Que.
National Mfg. Co., Ltd., Ottawa, Ont.
Noxon Co., Ltd., The, Ingersoll, Ont.

DISINFECTANTS.

Carbon Oil Works, Ltd., The, Winnipeg, Man.
Dominion Chemical Co., Ltd., Sherbrooke, Que.
Dominion Tar & Ammonia Co., Ltd., Hamilton, Ont.
Parker, Whyte, Ltd., Winnipeg, Man.
Paterson Mfg. Co., Ltd., Toronto, Ont., and Montreal, Que.
Sovereign Soaps & Chemicals, Ltd., Toronto, Ont.
Wampole, Henry K., & Co., Ltd., Perth, Ont.

DITCHERS.

Beatty, M., & Sons, Ltd., Welland, Ont.
Norsworthy, The C., Co., Ltd., St. Thomas, Ont.

DIVANS.

Canada Furniture Mfrs. Ltd., Woodstock, Ont.
Imperial Furniture Co., Toronto, Ont.
Kindel Bed Co., Ltd., Toronto, Ont.
Montreal Ppholstering Co., Montreal, Que.
Owen Daveno Bed Co., Hespeler, Ont.
Standard Bedding Co., Toronto, Ont.
Waterloo Furniture Co., Ltd., Waterloo, Ont.

DIVI-DIVI, the pods of a leguminous tree of the West Indies and South America, which are used in tanning. Venezuela is the chief exporting country. The tree has been introduced into India.

DOESKIN. (See BUCKSKIN.) The name is also applied to a twill of cotton and wool used for clothes.

DOG-FISH.—The popular name for several species of the shark. The skins of the spotted dog-fishes are used for polishing wood and ivory, and, after the spines have been removed, in covering instrument cases and other small boxes.

DOGS.—There is a considerable trade carried on in dogs of various breeds, and their skins are an article of commerce. Those of large dogs are made into leather for shoes and gloves, and those of small animals into white leather for gloves. In China dogs are reared for their skins, which are used as mats, coats, &c.

DOGS, Fire.

Canadian Ornamental Iron Co., Toronto, Ont.
Hutchison & Sticht, Montreal, Que.
Winnipeg Wire & Iron Works, Winnipeg, Man.

DOGS, Chain.

Coghlin, B. J., Co., Ltd., Montreal, Que.

DOGS, Lathe.

Canadian Billings & Spencer, Ltd., Welland, Ont.

DOGS, Sawmill.

Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Maritime Foundry & Machine Works, Ltd., Chatham, N.B.
McFarlane, Neill Mfg. Co., Ltd., The, St. Mary's, N.B.
Pink, Thomas, Pembroke, Ont.

DOGWOOD, or Dogberry, the name of several trees and shrubs of the genus Cornus. The European dogwood yields an oil resembling olive oil, and the charcoal prepared from the wood is the best for gunpowder. The bark is employed in medicine, and furnishes a yellow dye.

DOLLS, Teddy Bears, Poodle Dogs, Etc.

Dominion Toy Mfg. Co., Ltd., Toronto, Ont.

DOOR SETS.

Belleville Hardware & Lock Mfg. Co., Ltd., Belleville, Ont.
British American Hardware Mfg. Co., Toronto, Ont.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Peterborough Lock Mfg. Co., Ltd., The, Peterborough, Ont.

DOOR STOPS.

Lyster Wood Box Turning & Enameling Co., Ltd., Lyster, Que.

DOORS, Chestnut.

Lloyd & Son, Wingham, Ont.

DOORS, Fireproof.

Douglas Bros., Ltd., Toronto, Ont.
Campbell & Grill, Vancouver, B.C.
Fox & Co., Toronto, Ont.
Galt Art Metal Co., Ltd., The, Galt, Ont.
Hamilton Bridge Works, Ltd., Hamilton, Ont.
Hutchison & Sticht, Montreal, Que.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Metallic Roofing Co., Ltd., Toronto, Ont., and Winnipeg, Man.
Ormsby, A. B. Co., Ltd., Toronto, Ont.
Pedlar People, Ltd., The, Oshawa, Ont.
Reed, Geo. W., Co., Montreal, Que.
Richards-Wilcox Canadian Co., Ltd., London, Ont.
Riddell, John E., & Son, Hamilton, Ont.
Sheet Metal Mfg. Co., Ltd., Calgary, Alta.
Wheeler & Bain, Toronto, Ont.

DOORS, Hardwood and Veneered.

Anglin, S., & Co., Kingston, Ont.
Batts, Ltd., West Toronto, Ont.
Bryan Mfg. Co., Ltd., The, Collingwood, Ont.
Burton & Baldwin Mfg. Co., Ltd., Hamilton, Ont.
Eaton, J. R., & Sons, Ltd., Orillia, Ont.
Edwards, W. C., & Co., Ltd., Ottawa, Ont.
Gardner, P. W., & Son, Galt, Ont.
Georgian Bay Shook Mills, Ltd., Midland, Ont.
Lethbridge Sash and Door Co., Lethbridge, Alta.
Harrison, John, & Sons, Co., Ltd., Owen Sound, Ont.
Moore, The W. A., Co., Ltd., Meaford, Ont.
Ottawa Stair Works, Ottawa, Ont.
Pringle Co., The, Belleville, Ont.
Rathbone, Geo., Ltd., Toronto, Ont.
Rutherford, Wm. & Sons Co., Montreal.
Sarassin, Napoleon, & Fils, Ltd., Montreal, Que.
Stewart, Robt., Ltd., Guelph, Ont.
Taylor, Scott & Co., Ltd., Palmerston, Ont.
Truax, R., & Son, Walkerton, Ont.
Valley City Seating Co., Ltd., Dundas, Ont.
Wilson Bros., Ltd., Collingwood, Ont.

DOORS, Iron, Boiler, Brick Kiln.

Canada Iron Corporation, Ltd., Montreal, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Smart, The Jas., Mfg. Co., Ltd., Brockville, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

DOORS, Kalameined.

McFarlane & Douglas Co., Ltd., Ottawa, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Ormsby, The A. B., Co., Ltd., Winnipeg, Man.
Wright, J. W., Winnipeg, Man.

DOORS, Revolving.

Hillock, John, & Co., Ltd., Toronto, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Murray, G. W., Co., Ltd., Winnipeg, Man.

DOORS, Steel.

Hope, Henry, & Sons, Ltd., Toronto, Ont.
McFarlane, Douglas Co., Ltd., Ottawa, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Ormsby, A. B., Co., Ltd., Toronto, Ont., and Winnipeg, Man.
Steel & Radiation, Ltd., Toronto, Ont.
Structural Steel Co., Ltd., Montreal, Que.

DORIES, Fishing.

Whitman, Arthur W., Halifax, N.S.

DOUBLE DISC DRILLS.

Hamilton, Peter Co., Ltd., Peterborough, Ont.
International Harvester Co., of Canada, Ltd., Hamilton, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Moody, The Matthew, & Sons Co., Terrebonne, Que.
Tudhope-Anderson Co., Ltd., Orillia, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.

DOUGLAS FIR.—This is primarily a construction timber. It is also used to some extent for interior finish, flooring, panelling and doors. It has an attractive grain and figure and readily lends itself to staining. The tree is found only in British Columbia and the Western American States. It grows to a large size. Commercially, it is sometimes known as "Red Fir" or "Yellow Fir." The bulk of the material is used by manufacturers for building material, boats and cars. In the West it is used to some extent for ties, bridge timber, tiles, etc. (See WOOD.)

DOWEL PINS, Brass.

Canadian Winkley Co., Ltd., Windsor, Ont.
Tallman Brass & Metal Co., Hamilton, Ont.

DOWELS.

Canada Wood Specialty Co., Ltd., Orillia, Ont.
Kerr, J. & J., Co., Ltd., Petrolia, Ont.
Knechtel, The S., Wood Turning Co., Southampton, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Sussex Mfg. Co., Ltd., Sussex, N.B.

DOWLAS, a coarse unbleached linen used for pillow-cases, sheets, aprons, &c.

DOWN. (See FEATHERS.)

DRAGON'S BLOOD, a deep-red or reddish-brown resinous substance obtained from a variety of trees. An East Indian palm is the most important. It grows most freely on the east coast of Sumatra. Red Sandalwood is another East Indian source. Dragon's blood is an ingredient of varnishes, stains, and dentifrices.

DRAG HARROWS.

Bailey-Underwood Co., Ltd., New Glasgow, N.S.
Bateman-Wilkinson Co., Ltd., Toronto, Ont.
Belanger, A., Montagny, Que.
Bruce Agricultural Works, The, Teeswater, Ont.
Cockshutt Plow Co., Ltd., Brantford, Ont.
Dore, J. B., & Fils, Montreal, Que.
Frost & Wood Co., Ltd., The, Smith's Falls, Ont.
Hamilton, Peter Co., Ltd., Peterborough, Ont.
International Harvester Co., of Canada, Ltd., Hamilton, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Maxwell, David, & Sons, St. Mary's, Ont.
Noxon Co., Ltd., The, Ingersoll, Ont.
Oliver Chilled Plow Works of Canada, Ltd., Hamilton, Ont.
Tolton Bros., Ltd., Guelph, Ont.
Tudhope-Anderson Co., Ltd., Orilllia, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.

DRAWING BOARDS.

Dietzgen, Eugene, Co., of Ontario, Ltd., Toronto, Ont.
Hughes, Owens Co., Ltd., The, Montreal, Que.

DRAW KNIVES.

Fowler, The Josiah, Co., Ltd., St. John, N.B.
Gilmour Bros. & Co., Montreal, Que.
Hills, Allan, Edge Tool Co., Ltd., Galt, Ont.

DREDGE SLEEVES, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
Gutta Percha & Rubber, Ltd., Toronto, Ont.

DREDGES, Dipper and Clamshell.

Beatty, M., & Sons, Ltd., Welland, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Collingwood Shipbuilding Co., Ltd., Collingwood, Ont.
Kingston Shipbuilding Co., Ltd., Kingston, Ont.
McKeough & Trotter, Ltd., Chatham, Ont.
Polson Iron Works, Ltd., Toronto, Ont.

DRESS GOODS, Cotton. (See Cottons.)

DRESS GOODS, Woollen. (See Cloth.)

DRESSERS, Emery Wheel.

Adamite & Wheel Mfg. Co., Hamilton, Ont.
Canadian Hart Wheels, Ltd., Hamilton, Ont.
Prescott Emery Wheel Co., Ltd., Prescott, Ont.

DRESSERS AND DYERS, Fur and Skin.

Excelsior Fur Dressing & Dye Works, Montreal, Que.
McComber & Cummings, Montreal, Que.
Schnaufer, F., Ltd., Montreal, Que., and Toronto, Ont.

DRESSES, Children's. (See also Outfits, Children's.)

Allen Mfg. Co., Ltd., Toronto, Ont.
Arrow Mfg. Co., The, Toronto, Ont.
Boyd-Brumell Co., Ltd., Toronto, Ont.
Crescent Mfg. Co., Ltd., Montreal, Que.
Daniel, F. C. & Co., Toronto, Ont.
Doherty Mfg. Co., Ltd., The, Toronto, Ont.
Eclipse Cloak Co., Montreal, Que.
Eclipse Whitewear Co., Ltd., Toronto, Ont.
Flett, Lowndes & Co., Ltd., Toronto, Ont.
Gilchrist, C. M. & Co., Toronto, Ont.
Home & Watts, Ltd., Toronto, Ont.
Kellert, H. & Sons, Montreal.
Knox Mfg. Co., The, Toronto, Ont.
McRae Mfg. Co., Ltd., Toronto, Ont.
Neckwear & Fancy Goods Co., Ltd., The, St. John, N.B.
O'Donnell, W. & Co., Montreal, Que.
Regal Clothing Co., Montreal, Que.
Ship Bros., Montreal, Que.

DRESSES, Ladies' and Misses'.

Allen Mfg. Co., Ltd., Toronto, Ont.
American Silk Waist Mfg. Co., Ltd., Montreal, Que.
Arrow Mfg. Co., Toronto, Ont.
Bolsby Mfg. Co., Ltd., Toronto, Ont.
Boulter, The H. C. Co., Ltd., Toronto, Ont.
Canadian Converters Co., Ltd., The, Montreal, Que.
Colonial Whitewear Co., Ltd., The, Guelph, Ont.
Dalton Mfg. Co., Ltd., The, Toronto, Ont.
Diamond Whitewear Co., Ltd., The, Three Rivers, Que.
Doherty Mfg. Co., Ltd., Toronto, Ont.
Eagle Skirt & Cloak Mfg. Co., Montreal, Que.
Eclipse Cloak Co., Montreal, Que.
Eclipse Whitewear Co., Ltd., Toronto, Ont.
Emery Mfg. Co., The, Guelph, Ont.
Fairbairn, R. D. Co., Ltd., Toronto, Ont.
Fashion Dress & Waist Co., Ltd., Montreal, Que.

Felsen-Brennen Co., Montreal, Que.
Gale Mfg. Co., The, Toronto, Ont.
Hart Mfg. Co., The, Montreal, Que.
Helena Costume Co., Ltd., London, Ont.
Home & Watts, Ltd., Toronto, Ont.
Ideal Women's Wear, Ltd., Toronto, Ont.
"Imperial" The, Montreal, Que.
Knox Mfg. Co., The, Toronto, Ont.
Ladies' Novelty Mfg. Co., Ltd., The, Toronto, Ont.
Laurel Mfg. Co., The, Toronto, Ont.
Leon Costume Co., Winnipeg, Man.
Maxwell & Co., Ltd., Toronto, Ont.
Martin & Smith Co., Ltd., Toronto, Ont.
Murray-Kay, Ltd., Toronto, Ont.
McElroy Mfg. Co., Ltd., Toronto, Ont.
Novi-Modi Costume Co., Ltd., Toronto, Ont.
O'Donnell, W. & Co., Montreal, Que.
Opera Silk Waist Co., Montreal, Que.
Princess Garment Co., Toronto, Ont.
Quebec Whitewear Mfg. Co., Quebec, Que.
Queen Dress & Waist Co., Ltd., Montreal, Que.
Queen Skirt Co., Montreal, Que.
Ross, The C., Co. of Ottawa, Ottawa, Ont.
Star Whitewear Mfg. Co., The, Berlin, Ont.
Stobart, Sons & Co., Ltd., Winnipeg, Man.
Stylecraft Mfg. Co., Ltd., Winnipeg, Man.
Thompson Mfg. Co., Ltd., Toronto, Ont.

DRESSES, Wash.

Arrow Mfg. Co., Toronto, Ont.
Baldwin Garment Co., London, Ont.
Bell-Fieid Mfg. Co., Ltd., Toronto, Ont.
Crescent Mfg. Co., Ltd., Montreal, Que.
Dalton Mfg. Co., Ltd., The, Toronto, Ont.
Davison & Oakley, Ltd., Toronto, Ont.
Feick Mfg. Co., The, Berlin, Ont.
McElroy Mfg. Co., Ltd., Toronto, Ont.
McKay Bros., Ltd., Toronto, Ont.
O'Donnell, W. & Co., Montreal, Que.
Peerless Overall Co., Rock Island, Que.
Princess Garment Co., Toronto, Ont.
Telford Bros. Garment Co., Rock Island, Que.

DRESSING, Belt.

Buffalo Specialty Co., Bridgeburg, Ont.
Commercial Oil Co., Ltd., Hamilton, Ont.
Crescent Oil Co., The, Hamilton, Ont.
Dominion Belting Co., Ltd., Hamilton, Ont.
Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
McColl Bros. & Co., Toronto, Ont.
McLaren, The J. C., Belting Co., Ltd., Montreal, Que.
Ontario Lubricating Co., Ltd., The, Hamilton, Ont.
Sadler & Haworth, Montreal, Que.
Sovereign Soaps & Chemicals, Ltd., Toronto, Ont.
Sterne, G. F., & Sons, Brantford, Ont.

DRESSING, Carriage Top.

Alpha Chemical Co., Ltd., The, Berlin, Ont.
Moore, Benjamin, & Co., Ltd., Toronto, Ont.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.

DRESSING, Harness.

Alpha Chemical Co., Ltd., The, Berlin, Ont.
Carbon Oil Works, Ltd., Winnipeg, Man.
Dalley, The F. F., Co., of Hamilton, Ltd., Hamilton, Ont.
Domestic Specialty Co., Ltd., Hamilton, Ont.
Excel Mfg. Co., Ltd., Montreal, Que.
Frasier, Thornton & Co., Ltd., Cookshire, Que.
Nonsuch Mfg. Co., Ltd., The, Toronto, Ont.
Packard, L. H., & Co., Ltd., Montreal, Que.
Ralston, Robt., & Co., Hamilton, Ont.
Sultana, Ltd., Montreal, Que.

DRESSING, Shoe.

Codville Co., Ltd., The, Winnipeg, Man.

DRESSING, Shoe.

Alpha Chemical Co., Ltd., The, Berlin, Ont.
American Dressing & Sundry Co., Montreal, Que.
Boston Blacking Co., Montreal, Que.
Carbon Oil Works, Ltd., Winnipeg, Man.
Dalley, The F. F. Co., of Hamilton, Ltd., Hamilton, Ont.
Domestic Specialty Co., Ltd., Hamilton, Ont.
Everett & Barron Co., Amherst, N.S.
Masse Industrial Co., The, Windsor, Ont.
Nonsuch Mfg. Co., Ltd., The, Toronto, Ont.
Packard, L. H., & Co., Ltd., Montreal, Que.
Ralston, Robt., & Co., Hamilton, Ont.
Sultana, Ltd., Montreal, Que.

DRILL, a linen twill used for light trousers.

DRILLS, Blacksmiths'.

Canadian Buffalo Forge Co., Ltd., Montreal, Que.
Jardine, A. B., & Co., Hespeler, Ont.
London Foundry Co., Ltd., London, Ont.
Morrow, John, Screw & Nut Co., Ltd., Ingersoll, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.

DRILLS, Core.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.

DRILLS, Electric.

Canadian Pneumatic Tool Co., Ltd., Montreal, Que.
Fisher Electric & Mfg. Co., Ltd., Toronto, Ont.

DRILLS, Pneumatic.

Canadian Pneumatic Tool Co., Ltd., Montreal, Que.

DRILLS, Radial.

Bertram, John, & Sons, Ltd., Dundas, Ont.
Canada Machinery Corporation, Ltd., Galt, Ont.
McDougall, R. Co., Ltd., Galt, Ont.

DRILLS, Ratchet.

Decbul Tools, Ltd., Montreal, Que.
Morrow, John, Screw & Nut Co., Ltd., Ingersoll, Ont.

DRILLS, Rock, Air and Steam.

Burrell Rock Drill Co., Ltd., The, Belleville, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Ingersoll Rand Co., Ltd., Montreal, Que.
Decbul Tools, Ltd., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Rolston, James, Dunnville, Ont.
Napanee Iron Works, Napanee, Ont.
Whitfield, The John, Co., Toronto, Ont.

DRILLS, Submarine.

Beatty, M., & Sons, Ltd., Welland, Ont.
Canadian Ingersoll Rand Co., Ltd., Montreal, Que.

DRILLS, Twist, Carbon and High Speed.

Morrow, John, Screw & Nut Co., Ltd., Ingersoll, Ont.

DRILLS, Twist, Taper and Straight Shank.

Morrow, John, Screw & Nut Co., Ltd., Ingersoll, Ont.
Pratt & Whitney Co. of Canada, Ltd., Dundas, Ont.
Whitman & Barnes Mfg. Co., St. Catharines, Ont.
Wilt Twist Drill Co., Ltd., Walkerville, Ont.

DRILLS, Upright and Horizontal.

Bertram, John, & Sons, Ltd., Dundas, Ont.
Canada Machinery Corporation, Ltd., Galt, Ont.
Gardner, Robt., & Son, Ltd., Montreal, Que.
Jardine, A. B., & Co., Hespeler, Ont.
McDougall, R., Co., Ltd., Galt, Ont.

DRILLS, Wire.

Morrow, John, Screw & Nut Co., Ltd., Ingersoll, Ont.

DRILLS, Woodboring, Brace.

Morrow, John, Screw & Nut Co., Ltd., Ingersoll, Ont.

DRUGGET, a coarse woven and felted woollen material used for covering carpets. Also a stout dress fabric with a linen warp and a worsted weft.

DRUGGISTS' SPECIALTIES Flavors, Dyes, Etc.

Masse Industrial Co., The, Windsor, Ont.
Parke & Parke, Hamilton, Ont.

DRUGGISTS' SUNDRIES.

Beaver Flint Glass Co. of Toronto, Ltd., Toronto, Ont.
Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Chamberlain Medicine Co., Ltd., Toronto, Ont.
Lyman Bros. & Co., Ltd., Toronto, Ont.

DRUGGISTS' SUNDRIES, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
Eisman & Co., Toronto, Ont.

DRUGS.

Lyman Bros. & Co., Ltd., Toronto, Ont.
National Drug & Chemical Co. of Canada, Ltd., Montreal, Que.
Parke, Davis & Co., Walkerville, Ont.
Taylor, John F., Pharmacal Co., Ltd., Toronto, Ont.
Wampole, Henry K., & Co., Ltd., Perth, Ont.
Waterbury Chemical Co., Ltd., Toronto, Ont.
Western Mfg. Co., Winnipeg, Man.

DRUMS, Heating.

Collins Mfg. Co., The, Toronto, Ont.

DRUMS, Hoisting and Winding.

Beath, W. D., & Sons, Ltd., Toronto, Ont.
Beatty, M., & Sons, Ltd., Welland, Ont.
Bechtels, Ltd., Waterloo, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Miller Bros. & Sons, Ltd., Montreal, Que.

DRUMS, Putty.

Markwell Mfg. Co., Ltd., Winnipeg, Man.
Ross, J. F., 560 King St. West, Toronto, Ont.

DRYERS.

Berry Brothers, Walkerville, Ont.
Canada Paint Co., Ltd., The, Winnipeg, Man., and Montreal, Que.
Holland Varnish Co., Ltd., Montreal, Que.
International Varnish Co., Ltd., Toronto, Ont.
Langmuir, James, & Co., Ltd., Toronto, Ont.
Muirhead, A., Co., Ltd., Toronto, Ont.
Ramsay, A., & Son, Co., Montreal, Que.
Scarfe & Co., Brantford, Ont.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
Stephens, G. F., & Co., Ltd., Winnipeg, Man.

DRYERS, Asbestos.

MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.

DRYERS, Clothes, Lawn.

Cummer-Dowsell, Ltd., Hamilton, Ont.
Stratford Mfg. Co., Ltd., Stratford, Ont.

DRYERS, Concrete. (See Machines, Drill.)

Berg Machinery Mfg. Co., Ltd., Toronto, Ont.
London Concrete Machinery Co., Ltd., London, Ont.

DRYING APPARATUS.

Canadian Buffalo Forge Co., Ltd., Montreal, Que.
Inglis, The John, Co., Ltd., Toronto, Ont.
Sheldon's, Ltd., Galt, Ont.
Toronto Furnace & Crematory Co., Ltd., The, Toronto, Ont.
Turner, John, & Son, Toronto, Ont.

DUCK, a fine, highly-glazed linen canvas, used for sails, sacking, trousers, &c.

DUCK, Harvester, Hydraulic, Hose and Belting.

Imperial Cotton Co., Ltd., The, Hamilton, Ont.

DUCK, Sail, Wide, Ounce, Boot, Tennis, Etc.

Cosmos Cotton Co., Ltd., Yarmouth, N.S.
Imperial Cotton Co., Ltd., The, Hamilton, Ont.
Montreal Cottons, Ltd., Valleyfield, Que.

DUGONG, a species of siren, inhabiting the Indian Ocean and the Eastern Archipelago as far west as the Philippines. Another species is confined to the Red Sea and East African coast, and the third is found in the waters of Eastern and Northern Australia. The oil is an article of commerce; it is said to have all the medicinal properties of cod-liver oil.

DUMB BELLS. (See Clubs and Dumb Bells.)

DUMP RAKES.

Cossitt Co., Ltd., The, Brockville, Ont.
Frost & Wood Co., Ltd., The, Smith's Falls, Ont.
Hamilton, Peter, Co., Ltd., Peterborough, Ont.
International Harvester Co. of Canada, Ltd., Hamilton, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Maxwell, David, & Sons, St. Mary's, Ont.

DURMA MATS, the fibre of a kind of reed, is woven in India into mats, thus named.

DURRA, a genus of grasses, known also as Indian millet. Common durra is extensively cultivated in India, where it is called great millet and jawar, and in Africa as a cereal. Kaffir corn is grown in South Africa, by Europeans, chiefly for cattle fodder.

DUSTERS, Cotton, Auto.

Canadian Textile & Weaving Co., Ltd., Guelph, Ont.
Oxford Worsted Co., Ltd., Amherst, N.S.

DUSTERS, Feather.

Burdett, Frank, Hamilton, Ont.
Nelson, H. W., & Co., Ltd., Toronto, Ont.

DUSTERS, Wool and Waste.

Karch, H. W., Hespeler, Ont.

DUTCH METAL, an alloy of copper and zinc beaten out into leaves and used instead of gold in rough work.

DUTCH RUSHES, stems of the horsetail are exported from Holland. They are used in polishing metal, marble, wood, &c.

DYEWOODS. (See LOGWOOD, BRAZIL WOOD, SAPPAN, CAMWOOD, FUSTIC, &c.)

DYERS, CLEANERS and FINISHERS.

British American Dyeing Co., Montreal, Que.
Canadian Dyers' Association, Ltd., Toronto, Ont.
Parker's Dye Works, Ltd., Toronto, Ont.

DYERS, Yarn and Piece.

British American Dyeing Co., Montreal, Que.
Hamilton Cotton Co., Hamilton, Ont.
Montreal Blanket Co., Montreal, Que.
Montreal Cottons, Ltd., Valleyfield, Que.
Smith Mfg. Co., Ltd., Toronto, Ont.

DYESTUFFS AND DYERS' SUPPLIES.

Atteaux Dyestuff & Chemical Co., Ltd., Toronto, Ont.
Brayley Drug Co., Ltd., St. John, N.B.
Johnson-Richardson Co., Ltd., The, Montreal, Que.
Klipstein & Co., Ltd., Montreal, Que.
Morin, Dr. Ed., & Co., Ltd., Quebec, Que.
Paine, The J. B., Co., Ltd., Toronto, Ont.

DYNAMITE, nitro-glycerine kneaded into kieselguhr, a siliceous earth composed of the remains of diatoms. Generally three parts of nitro-glycerine are mixed with one of kieselguhr. The dynamite is made up into cartridges and used for explosions in mines, &c. It can only be exploded by detonation, and a capsule of fulminate of mercury is employed for the purpose. There are other forms of dynamite, such as lithofracteur, and a very effective gelatinous dynamite, prepared by soaking less than 7 or 8 per cent. of gun-cotton in nitric acid, whereby a syrup is produced which, with about 8 per cent. of lint, forms a powdery substance. This dynamite holds the nitroglycerine better in water or under pressure.

DYNAMITE, Gelatine, Forcite-Gelatine, Ammonia, Nitro-Glycerine. (See also Explosives.)

Acadia Power Co., Ltd., Halifax, N.S.
Canadian Explosives, Ltd., Montreal, Que.
Curtis's & Harvey (Canada), Ltd., Montreal, Que.
Giant Powder Co., Consolidated, The, Vancouver, B.C.

DYNAMOS.

Canadian Crocker-Wheeler Co., Ltd., The, St. Catharines, Ont.
Canadian General Electric Co., Ltd., Toronto, Ont.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Consolidated Electric Co., Ltd., Toronto, Ont.
Electrical Construction Co., Ltd., The, London, Ont.
Forman, John, Montreal, Que.
Hinton Electric Co., Ltd., Vancouver, B.C.
Jones & Moore Electric Co., Ltd., Toronto, Ont.
Toronto & Hamilton Electric Co., Hamilton, Ont.

DYNAMOS, Electrolytic.

Canadian Hanson & Van Winkle Co., Ltd., Toronto, Ont.
Toronto & Hamilton Electric Co., Hamilton, Ont.

E

EAGLEWOOD. (See LIGN ALOES.)

EAR-SHELL is a genus of gasteropods, of which the shells have a beautiful mother-of-pearl lustre. The Venus' Ear of Italy is particularly beautiful, and is used in inlaying.

EARTH NUTS. (See GROUND NUTS.)

EARTHENWARE. (See POTTERY.)

EARTHENWARE.

Campbell's, R., Sons, Hamilton, Ont.
Davis, John, & Son, North Toronto, Ont.
Foster Pottery Co., Hamilton, Ont.
Medicine Hat Pottery Co., Medicine Hat, Alta.

EARTHENWARE, Sanitary.

Canadian Trenton Potteries Co., Ltd., St. John's, Que.
Dominion Sanitary Pottery Co., Ltd., St. John's, Que.

EAVESTROUGH. (See also Pipe, Conductor.)

Aubry, A., & Fils, Montreal, Que.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Pedlar People, Ltd., Oshawa, Ont.
Riddell, John E., & Son, Hamilton, Ont.
Sheet Metal Mfg. Co., Ltd., Calgary, Alta.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont., and Winnipeg, Man.
Tracey, John R., Vancouver, B.C.
Welch, A., & Son, Toronto, Ont.
Wheeler & Bain, Toronto, Ont.
Winnipeg Ceiling & Roofing Co., Winnipeg, Man.
Wright, E. T., & Co., Hamilton, Ont.
Wright, J. T., Winnipeg, Man.

EBONITE. (See VULCANITE.)

EBONY, a heavy, hard black wood, the heartwood of several species of Diospyros. The best ebony comes from India and Ceylon. The persimmon of Texas yields a small quantity.

ECONOMIZERS, Fuel.

Babcock & Wilcox, Ltd., Montreal, Que.
Fisher Fuel Economizer, Ltd., Toronto, Ont.

EDDOES. (See COCCO.)

EDGERS, Saw Mill.

Gies, Philip, Berlin, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
International Engineering Works, Ltd., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Maritime Foundry & Machine Works, Ltd., Chatham, N.B.
McOuat, T., & Son, Lachute Mills, Que.
Mowry & Sons, Gravenhurst, Ont.
Muskoka Foundry Co., Bracebridge, Ont.
Plessisville Foundry Co., Ltd., Plessisville, Que.
St. John Iron Works, Ltd., St. John, N.B.
Sleeper & Akhurst, Coaticook, Que.
Smith Foundry Co., Ltd., The, Fredericton, N.B.
Waterous Engine Works Co., Ltd., Brantford, Ont.

EGGS.—At one time Canada was a considerable exporter of eggs—exporting as many as 11,625,108 dozen in 1902. But in recent years this condition has been considerably changed. During the fiscal year ending with March 31st, 1914, her exports amounted to only 124,002, dozen, while her imports of eggs for the same year were 11,274,036 dozen.

EGGS, Pickled and Cold Storage.

Duff, John, & Son, Ltd., Hamilton, Ont.
Flavelle, Ltd., Lindsay, Ont.
Gunns, Ltd., Toronto, Ont.
Matthews Blackwell, Ltd., Montreal, Que.
Whyte Packing Co., Ltd., The, Stratford, Ont.

EIDER.—Eider down is the breast down of the common eider and the King's eider. It is collected from the nests in Norway, Iceland, Spitzbergen, Greenland, and Newfoundland.

EIDERDOWN GOODS.

Canadian Cottons, Ltd., Montreal, Que.
Galt Knitting Co., Ltd., The, Galt, Ont.
Newlands & Co., Galt, Ont.
Reiner Bros. & Co., Ltd., Wellesley, Ont.

EIDERDOWN ROBES.

Martin & Smith Co., Ltd., Toronto, Ont.
Turner, J. J., & Sons, Peterborough, Ont.

EJECTORS.

Mitchell, The Robt., Co., Ltd., Montreal, Que.
Morrison, The Jas. ,Brass Mfg. Co., Ltd., Toronto, Ont.
Penberthy Injector Co., Ltd., Windsor, Ont.

EJOO, or Gomuti, a fibre obtained from the sugar palm of the Eastern Archipelago. It is very durable, and is made into cables, &c.

ELASTIC, for Gloves.

Gillies, A. J., Mfg. Co., Toronto, Ont.
Granby Elastic Web Co., Ltd., Granby, Que.

ELASTIC, Garter. (See also Webbing, Suspender, Etc.)

Hamilton Cotton Co., Hamilton, Ont.

ELATERIUM, a powerful purgative obtained from the fruit of the squirting cucumber which grows in Southern Europe.

ELECTRIC APPARATUS.

Ahearn & Soper, Ltd., Ottawa, Ont.
Benjamin Electric Mfg. Co., of Canada, Ltd., Toronto, Ont.
Canadian Crocker-Wheeler Co., Ltd., The, St. Catharines, Ont.
Canadian Electric & Motor Co., Ltd., Toronto, Ont.
Canadian General Electric Co., Ltd., Toronto, Ont.
Canadian Westinghouse Co., Ltd. ,Hamilton, Ont.
Century Electric Co., Montreal, Que.
Cleal, Jos. P., Toronto, Ont.
Consolidated Electric Co., Ltd., Toronto, Ont.
Electrical Construction Co., Ltd., The, London, Ont.
Forman, John, Montreal, Que.
Hinton Electric Co., Ltd., Vancouver, B.C.
Jones & Moore Electric Co., Ltd., Toronto, Ont.
Marshall-Davis, Ltd., Dunnville, Ont.
McGuire, W. J., Ltd., Toronto, Ont.
Mechanics' Supply Co., Ltd., Quebec, Que.
Monarch Electric Co., Ltd., St. Lambert, Que.
Munderloh & Co., Ltd., Montreal, Que.
Northern Electric & Mfg. Co., Ltd., Montreal, Que.
Packard Electric Co., Ltd., St. Catharines, Ont.
Starr, John, Son & Co., Ltd., Halifax, N.S.
Turner, John, & Son, Toronto, Ont.

ELECTRIC EQUIPMENT or Street Cars.

Canadian Westinghouse Co., Ltd., Hamilton, Ont.

ELECTRIC FIXTURES.

Barton-Netting Co., Ltd., Windsor, Ont.
Bennett & Wright Co., Ltd., Toronto, Ont.
Chadwick Brass Co., Ltd., The, Hamilton, Ont.
Colonial Fixtures, Ltd., The, Toronto, Ont.
Crown Electrical Mfg. Co., Ltd., Brantford, Ont.
DeCew Co., Ltd., Winnipeg, Man.
Edmunds, H. H. & Co., Toronto, Ont.
Farquhar Bros., Ltd., Halifax, N.S.
Forman, John, Montreal, Que.
Galt Electric & Gas Fixtures Co., Galt, Ont.
Garry Mfg. Co., Ltd., Winnipeg, Man.
Garth Co., The, Montreal, Que.
Keiths, Ltd., Toronto, Ont.
Marshall-Davis, Ltd., Dunnville, Ont.
McDonald & Willson Co., Ltd., Toronto, Ont.
McGuire, W. J., Ltd., Toronto, Ont.
Mitchell, The Robert Co., Ltd., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Munderloh & Co., Ltd., Montreal, Que.
Reeder Electric & Mfg. Co., Ltd., Toronto, Ont.
Reinhardt Mfg. Co., Ltd., The, Montreal, Que.
Rice-Knight, Ltd., Toronto, Ont.
Starr, John, Son & Co., Ltd., Halifax, N.S.

ELECTRIC SAUTE PANS, CHAFING DISHES, PERCOLATORS, ETC.

Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Hot Point Electric Heating Co., Toronto, Ont.
National Electric Heating Co., Ltd., Toronto, Ont.

ELECTRICAL POWER PLANTS.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Crocker-Wheeler Co., Ltd., The, St Catharines, Ont.
Canadian General Electric Co., Ltd., Toronto, Ont.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Consolidated Electric Co., Ltd., Toronto, Ont.
Croftan Storage Battery Co., Toronto, Ont.
Electrical Construction Co., Ltd., The, London, Ont.
Forman, John, Montreal, Que.
Hoffmeister, R., Vancouver, B.C.
Starr, John, Son & Co., Ltd., Halifax, N.S.
Turner, John, & Son, Toronto, Ont.

ELECTRICAL SUPPLIES.

Benjamin Electric Mfg. Co., of Canada, Ltd., Toronto, Ont.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Duncan Electrical Mfg. Co., Ltd., Montreal, Que.
Fisher Electric & Mfg. Co., Ltd., Toronto, Ont.
Hoffmeister, R., Vancouver, B.C.
Monarch Electric Co., Ltd., St. Lambert, Que.
Standard Paint Co., of Canada, Ltd., Montreal, Que.
Triple Tread Mfg. Co., Ltd., Winnipeg, Man.

ELECTRODES.

Canadian National Carbon Co., Ltd., Toronto, Ont.
Electro-Metals, Ltd., Welland, Ont.
International Acheson Graphite Co., Ltd., Niagara Falls, Ont.

ELECTROPLATE.

Birks, Henry, & Sons, Ltd., Montreal, Que.
Ellis, P. W., & Co., Ltd., Toronto, Ont.
McGlashan, Clarke Co., Ltd., Niagara Falls, Ont.
Meriden Britannia Co., Hamilton, Ont.
Pearce, Henry, Montreal, Que.
Roden Bros., Ltd., Toronto, Ont.
Rogers, The Wm., Mfg. Co., Ltd., Niagara Falls, Ont.
Royal Silver Plate Co., Montreal.
Standard Silver Co., of Toronto, Ltd., Toronto, Ont.
Toronto Silver Plate Co., Ltd., The, Toronto, Ont.
Wade Mfg. Co., Dundas, Ont.
Central Press Agency, Ltd., Toronto, Ont.

Garry Mfg. Co., Ltd., Winnipeg, Man.
Hood-Sandham Co., Ltd., Toronto, Ont.
Lymburner, Ltd., Montreal, Que.
Robertson, P. L., Mfg. Co., Ltd., Milton, Ont.

ELECTROTYPERS.

Brigdens, Ltd., Toronto, Ont.
Jones, The J. L., Engraving Co., Ltd., Toronto, Ont.
Littlejohn & Vaughan, Ltd., Toronto, Ont.
Methodist Book & Publishing House, Toronto, Ont.
National Electrotype & Stereotype Co., Ltd., The, Toronto, Ont.
Ransom Engraving Co., Ltd., Winnipeg, Man.
Rapid Electrotype Co., of Canada, Montreal, Que.
Standard Photo Engraving Co., Ltd., Montreal, Que.
Stovel Co., Winnipeg, Man.
Thomson Stationery Co., Ltd., Vancouver, B.C.

ELEMI, a medicinal resin obtained in the Philippines.

ELEVATOR ENCLOSURES.

Alberta Ornamental Iron Co., Ltd., Redcliff, Alta.
British Columbia Iron Wire Fence Co., Vancouver, B.C.
Cummings Brass, Iron & Wire Co., Ltd., Winnipeg, Man.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Hutchison & Sticht, Montreal, Que.
Otis-Fensom Elevator Co., Ltd., Toronto, Ont.
Partridge & Sons, Kingston, Ont.
Schmidt & Co., Winnipeg, Man.
Turnbull Elevator Mfg. Co., Toronto, Ont.
Watson, John, & Son, of Montreal, Ltd., Montreal, Que.
Westminster Iron Works, New Westminster, B.C.
Winnipeg Wire & Iron Works, Winnipeg, Man.

ELEVATORS, Factory, Passenger and Warehouse.

British Columbia Iron Wire Fence Co., Vancouver, B.C.
Cote Bros. & Burritt, Montreal, Que.
Darling Bros., Ltd., Montreal, Que.
Jones & Glassco, Montreal, Que.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.
Oil Motor & Mfg. Co., Ltd., St. John, N.B.
Otis Fensom Elevator Co., Ltd., Toronto, Ont.
Schmidt & Co., Winnipeg, Man.
Stephenson, E. S., & Co., St. John, N.B.
Turnbull Elevator Mfg. Co., Toronto, Ont.

ELEVATORS, Grain.

Canadian Bridge Co., Ltd., Walkerville, Ont.
Green, The G. Walter, Co., Ltd., Peterborough, Ont.
Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
Miller Bros. & Sons, Ltd., Montreal, Que.
National Bridge Co., of Canada, Ltd., Montreal, Que.
Structural Steel Co., Ltd., Montreal, Que.

ELEVATORS, Grain (Portable.)

Brandon Machine & Implement Works, Brandon, Man.

ELEVATORS, Hand.

Otis-Fensom Elevator Co., Ltd., Toronto, Ont.
Turner, John & Son, Toronto, Ont.

ELEVATORS, Stone Crusher.

General Car & Machinery Works, Montmagny, Que.
Jenckes Machine C,.o Ltd., Sherbrooke, Que.
London Concrete Machinery Co., Ltd., London, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

ELM.—The wood of the English elm is strong and close, little liable to split, and resists the action of water. Keels of ships, naves, and spokes of wheels are therefore made of it. The wahoo elm of Southern United States is a fine-grained, compact, wood, and the wood of the slippery elm is fairly good. All species of elm carry galls, used in tanning and dyeing. The Spanish elm of the West Indies yields Bois de Chypre. It is from a specie of elm that princess wood is obtained.

Elm is one of the most universally popular woods in Canada, and is used for almost every purpose for which a hardwood can be used. The three principal varieties cut in Canada, are the white elm, the rock elm, and the slippery elm. The white elm is probably the toughest of native woods. It is heavy, hard, and strong, and has a coarse grain, but has a fine texture. Its chief fault lies in the fact that it is not durable, and is difficult to season, being liable to warp and twist. Rock elm is the most valuable of the three, being harder, tougher, stronger, and more durable, but it is not so plentiful. Soft red, or slippery, elm is the poorest. Almost half the elm used is for cooperage, but the makers of furniture, boxes, and fruit packages, also use large quantities. **(See WOOD.)**

ELIXIRS, Medicinal.

Frosst, Chas. E., & Co., Montreal, Que.
Horner, F. W., Ltd., Montreal, Que.
Parke, Davis & Co., Walkerville, Ont.
Saunders, W. E., & Co., London, Ont.
Wampole, Henry K., & Co., Ltd., Perth, Ont.

EMBDEN GROATS, crushed groats often made into gruel.

EMBOSSERS.

Alexander & Cable Lithographing Co., Ltd., Toronto, Ont.
Benallack Lithographing & Publishing Co., Ltd., Montreal, Que.
Davis & Henderson, Ltd., Toronto, Ont.
Dawson, Chas. F., Ltd., Montreal, Que.
Dawson, W. V., & Co., Montreal, Que.
Federated Press, Ltd., The, Montreal, Que.
Harris Lithographing Co., Toronto, Ont.
Hart, S. R., & Co., Toronto, Ont.
Kieran, Crawford & Gray, Montreal, Que.
Lawson & Jones, Ltd., London, Ont.
Le Soleil, Quebec, Que.
Lovell, The R. J., Co., Ltd., Toronto, Ont.
Morton, Phillips & Co., Montreal, Que.
Ottawa Photo Engraving Co., Ottawa, Ont.
Reason, H. T., & Co., London, Ont.
Rolph & Clark, Ltd., Toronto, Ont.
Smith, The David, Engraving & Lithographing Co., Toronto, Ont.
Stone, Ltd., Toronto, Ont.
Stovel Co., Winnipeg, Man.

EMBROIDERIES.

Cooper, The H. S., Co., Toronto, Ont.
Kassab, The G. & S., Kimona Mfg. Co., Montreal, Que.
Rea, A. E., & Co., Ltd., Toronto, Ont.
Ritchie, H. P., & Co., Toronto, Ont.
Royal Embroidery Works, Montreal.

EMBROIDERY, Gold and Silver.

Dominion Regalia Co., Ltd., Toronto, Ont.
Mortimore & Blackeby, Toronto, Ont.
Scully, Wm., Mntreal, Que.

EMERALD, a crystallised silicate of beryllium, differing from beryl and aquamarine only in its dark green colour. The finest stones have been found in Colombia, and on the Upper Orinoco several valuable stones have been obtained. Siberia and New South Wales also produce emeralds. Those of Salzburg and other parts of Europe are inferior. Oriental emeralds are green corundum.

EMERY. (See CORUNDUM.)

EMERY.

Canadian Hart Wheels, Ltd., Hamilton, Ont.
Dominion Abrasive Wheel Co., Ltd., New Toronto, Ont.
Prescott Emery Wheel Co., Ltd., Prescott, Ont.

ENAMELED WARE.

Davidson, Thos., Mfg. Co., Ltd., Montreal, Que., and Winnipeg, Man.
McClary Mfg. Co., London, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont., and Winnipeg, Man.
Standard Ideal Co., Ltd., Port Hope, Ont.

ENAMELS.

Alpha Chemical Co., Ltd., The, Berlin, Ont.
Brandram-Henderson, Ltd., Halifax, N.S., and Montreal, Que.
Canada Paint Co., Ltd., The, Montreal, Que., and Winnipeg, Man.
Domestic Specialty Co., Ltd., Hamilton, Ont.
Dougall Varnish Co., Ltd., The, Montreal, Que.
Harland, Wm., & Son, Toronto, Ont.
Holland Varnish Co., Ltd., Montreal, Que.
Imperial Varnish & Color Co., Ltd., Toronto, Ont.
International Varnish Co., Ltd., Toronto, Ont.
Jamieson, Jas. W., & Co., Montreal, Que.
Jamieson, R. C., & Co., Ltd., Montreal, Que.
Langmuir, James, & Co., Ltd., Toronto, Ont.
Lowe Bros., Ltd., Toronto, Ont.
Mander Bros., Montreal, Que.
Masse Industrial Co., The, Windsor, Ont.
Moore, Benjamin, & Co., Ltd., Toronto, Ont.
Muirhead, A., Co., Ltd., Toronto, Ont.
Ottawa Paint Works, The, Ottawa, Ont.
Pinchin-Johnson & Co., Canada, Ltd., Toronto, Ont.
Pratt & Lambert, Bridgeburg, Ont.
Scarfe & Co., Brantford, Ont.
Sherwin-Williams Co., of Canada, Ltd., Montreal, Que.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
Stephens, G. F., & Co., Ltd., Winnipeg, Man.

ENGINEERS' SUPPLIES.

Canadian Steam Boiler Equipment Co., Ltd., Toronto, Ont.
Electric Boiler Compound Co., Ltd., Guelph, Ont.
Hamilton Engine Packing Co., Hamilton, Ont.
McAvity, T., & Sons, Ltd., St. John, N.B.
Penberthy Injector Co., Ltd., Windsor, Ont.
Piper, The Hiram L., Co., Ltd., Montreal, Que.
Plastics, Ltd., Toronto, Ont.
Robertson, The James Co., Ltd., Toronto, Ont.
United Brass & Lead, Ltd., Toronto, Ont.

ENGINES, Automatic, High Speed.

Bell, The Robt., Engine & Thresher Co., Ltd., Seaforth, Ont.
Berg Machinery Mfg. Co., Ltd., The, Toronto, Ont.
Canadian Sirocco Co., Ltd., Windsor, Ont.
International Engineering Works, Ltd., Montreal, Que.
Leonard, E., & Sons, London, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.
White, R. C., Montreal, Que.
Whitelaw, Robert, Woodstock, Ont.

ENGINES, Coal Oil.

Berg Machinery Mfg. Co., Ltd., Toronto, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.

ENGINES, Gas and Gasoline.

Acadia Gas & Engine Co., Ltd., Bridgewater, N.S.
Adams Launch & Engine Mfg. Co., Penetanguishene, Ont.
Beauceville, La Fonderie de, Beauceville East, Que.
Bell, The Robert, Engine & Thresher Co., Ltd., Seaforth, Ont.
Berg Machinery Mfg. Co., Ltd., Toronto, Ont.
Berlin Gasoline Engine & Thresher Co., Berlin, Ont.
Bournival & Co., Montreal, Que.
Brandon Machine & Implement Works, Montmagny, Que.
Bruce Agricultural Works, The, Teeswater, Ont.
Canada Producers & Gas Engine Co., Ltd., Barrie, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Engines, Ltd., Dunnville, Ont.
Canadian Fairbanks, Morse Co., Ltd., Montreal, Que.
Chalifoux, O., & Fils, St. Hyacinthe, Que.
Chapman Engine & Mfg. Co., Ltd., Dundas, Ont.
Ford Motor Co., of Vanada, Ltd., Walkerville, Ont.
Fraser Machine & Motor Works, New Glasgow, N. S.
General Car & Machinery Works, Montmagny, Que.
Gilson Mfg. Co., Ltd., Guelph, Ont.
Gosselin, J. A., La Compagnie, Drummondville, Que.
Goold, Shapley & Muir Co., Ltd., Brantford, Ont.
Guarantee Motor Co., Hamilton, Ont.
Hall Machine Works, Vancouver, B.C.
Hamilton Motor Work, Ltd., Hamilton, Ont.
Heaps Engineering Co., Ltd., New Westminster, B.C.
Lachine Motor Works Co., Ltd., Lachine, Que.
Lair, Paul, Montreal, Que.
Lepage, C. H. & Co., Ltd., Quebec, Que.
Lloyd Mfg. Co., Kentville, N.S.
London Concrete Machinery Co., Ltd., London, Ont.
London Gas Power Co., Ltd., London, Ont.
Lunenburg Foundry Co., Ltd., Lunenburg, N.S.
Manitoba Engines, Ltd., Brandon, Man.
McKeough & Trotter, Ltd., Chatham, Ont.
Midland Engine Works Co., Midland, Ont.
Oil Motor & Mfg. Co., Ltd., St. John, N.B.
Oil Well Supply Co., Ltd., Petrolia, Ont.
Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
Payette, The P., Co., Penetanguishene, Ont.
Peterborough Machine & Lubricator Co., Ltd., Peterboro, Ont.
Petrie Mfg. Co., Ltd., Hamilton, Ont.
Pioneer Tractor Co., Ltd., Calgary, Alta.
St. Lawrence Engine Co., Ltd., Brockville, Ont.
Savoie Guay, La Compagnie, Plessisville Station, Que.
Schofield-Holden Machine Co., Ltd., Toronto, Ont.
Selby & Youlden, Ltd., Kingston, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Stewart, Bruce, & Co., Ltd., Charlottetown, P. E. I.
Stratford Mill Building Co., Ltd., The, Stratford, Ont.
Valleyfield Machine Works, Valleyfield, Que.
Victoriaville Foundry Co., Victoriaville, Que.
Welland Machine & Foundries, Ltd., Welland, Ont.
Wilson, J. C., & Co., Glenora, Ont.

ENGINES, Gas Traction, Plowing, and Threshing.

Canada Standard Auto & Tractor Co., Moose Jaw, Sask.
Gilson Mfg. Co., Ltd., Guelph, Ont.
Goold, Shapley & Muir Co., Ltd., Brantford, Ont.
Pioneer Tractor Co., Ltd., Calgary, Alta.
Sawyer & Massey Co., Ltd., Hamilton, Ont.
Waterloo Mfg. Co., Ltd., The, Waterloo, Ont.

ENGINES, Hoisting, Hauling and Winding.

Beatty, M., & Sons, Ltd., Welland, Ont.
Berg Machinery Mfg. Co., Ltd., Toronto, Ont.
Brown Machine Co., Ltd., New Glasgow, N.S.
Canada Iron Corporation, Ltd., Montreal, Que.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Doty Marine Engine & Boiler Co., Ltd., Goderich, Ont.
Empire Mfg. Co., Ltd., Vancouver, B.C.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
London Concrete Machinery Co., Ltd., London, Ont.
Maritime Foundry & Machine Works, Ltd., Chatham, N.B.
Marsh & Henthorn, Ltd., Belleville, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Midland Engine Works Co., Midland, Ont.
Miller Bros. & Sons, Ltd., Montreal, Que.
Mussen's, Ltd., Montreal, Que.
New Burrell-Johnson Iron Co., Ltd., The, Yarmouth, N.S.
Payette, The P. ,Co., Penetanguishene, Ont.
Ross & Howard Iron Works Co., Ltd., Vancouver, B.C.
Sleeper & Akhurst, Coaticook, Que.
Vancouver Engineering Works, Ltd., Vancouver, B.C.
Waterous Engine Works, Co., Ltd., Brantford, Ont.
Welland Machine & Foundries, Ltd., Welland, Ont.
White, R. C., Montreal, Que.

ENGINES, Kerosene.

Acadia Gas & Engine Co., Ltd., Bridgewater, N.S.
Bruce Agricultural Works, The, Teeswater, Ont.
Adams Launch & Engine Mfg. Co., Penetanguishene, Ont.
Gilson Mfg. Co., Ltd., Guelph, Ont.
Heaps Engineering Co., Ltd., New Westminster, B.C.
Lair, Paul, Montreal, Que.
Victoriaville Foundry Co., Victoriaville, Que.

ENGINES, Marine.

Adams Launch & Engine Mfg. Co., Penetanguishene, Ont.
British Columbia Marine Railways Co., Ltd., Victoria, B.C.
Canada Steam Pump & Machine Co., Ltd., Toronto, Ont.
Canadian Buffalo Forge Co., Ltd., Montreal, Que.
Canadian Fairbanks Morse Co., Ltd., Montreal, Que.
Canadian Sirocco Co., Ltd., Windsor, Ont.
Collingwood Shipbuilding Co., Ltd., Collingwood, Ont.
Doty Marine Engine & Boiler Co., Ltd., Goderich, Ont.
Drolet, F. X., Quebec, Que.
Fleming, James, St. John, N.B.
Georgian Bay Engineering Works, Midland, Ont.
Gilson Mfg. Co., Ltd., Guelph, Ont.
Hamilton Motor Works, Ltd., Hamilton, Ont.
Hutchinson Bros., Victoria, B.C.
Inglis, The John Co., Ltd., Toronto, Ont.
Lachine Motor Works, Ltd., Lachine, Que.
Lloyd Mfg. Co., Kentville, N.S.
Marine Iron Works, Victoria, B.C.
Maritime Foundry & Machine Works, Ltd., Chatham, N.B.
Matheson, I. & Co., Ltd., New Glasgow, N.S.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.
McKeough & Trotter, Ltd., Chatham, Ont.
Midland Engine Works Co., Midland, Ont.
Moir, W. & A., Halifax, N.S.
New Burrell-Johnson Iron Co., Ltd., The, Yarmouth, N.S.
Owen Sound Iron Works Co., Ltd., Owen Sound, Ont.
Oxford Foundry & Machine Co., Ltd., Oxford, N. S.
Payette, The P., Co., Penetanguishene, Ont.
Polson Iron Works, Ltd., Toronto, Ont.
Ross & Howard Iron Works Co., Ltd., Vancouver, B.C.
Selby & Youlden, Ltd., Kingston, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Stewart, Bruce, & Co., Ltd., Charlottetown, P. E. I.
Sydney Foundry & Machine Works, Ltd., Sydney, N.S.
Terminal City Iron Works, Vancouver, B.C.
Union Foundry & Machine Works, St. John, N. B.
Western Dry Dock & Shipbuilding Co., Ltd., Port Arthur, Ont.
White, R. C., Montreal, Que.

ENGINES, Oil.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Fairbanks Morse Co., Ltd., Montreal, Que.
Oil Motor & Mfg. Co., Ltd., St. John, N.B.

ENGINES, Portable.

Asbestos Foundry Co., Inc., Thetford Mines, Que.
Beauceville, La Fonderie de, Beauceville, Que.
Bell, The Robert Engine & Thresher Co., Ltd., Seaforth, Ont.
Berg Machinery Mfg. Co., Ltd., Toronto, Ont.
Bertrand, La Cie., F. X., Mfg., Ltee., St. Hyacinthe, Que.
Bruce Agricultural Works, The, Teeswater, Ont.
Canadian Buffalo Forge Co., Ltd., Montreal, Que.
Canadian Fairbanks Morse Co., Ltd., Montreal, Que.
Canadian Sirocco Co., Ltd., Windsor, Ont.
Crown Engine & Machinery Co., Montreal, Que.
Doty Marine Engine & Boiler Co., Ltd., Goderich, Ont.
Drolet, F. X., Quebec, Que.
Dunbar Engine & Boiler Co., Woodstock, N.B.
Empire Mfg. Co., Ltd., The, Vancouver, B.C.
Gilson Mfg. Co., Ltd., Guelph, Ont.
Goodison, The John, Thresher Co., Ltd., Sarnia, Ont.
Georgian Bay Engineering Works, Midland, Ont.
International Engineering Works, Ltd., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Lair, Paul, Montreal, Que.
Leonard, E. & Sons, London, Ont.
Long, The E., Mfg. Co., Ltd., Orillia, Ont.
Macdonald Thresher Co., Ltd., The, Stratford, Ont.
New Burrell-Johnson Iron Co., Ltd., The, Yarmouth, N.S.
New Hamburg Mfg. Co., Ltd., New Hamburg, Ont.
Oxford Foundry & Machine Co., Ltd., Oxford, N. S.
Peterson Bros. Iron Works, Winnipeg, Man.
Sawyer & Massey Co., Ltd., Hamilton, Ont.
Stevenson Boiler & Engine Works, Petrolia, Ont.
Victoriaville Foundry Co., Victoriaville, Que.
Waterloo Mfg. Co., Ltd., The, Waterloo, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.
White, R. C., Mntreal, Que.
White, The George & Sons Co., Ltd., London, Ont.
Whitelaw, Robert, Woodstock, Ont.
Williams, The A. R., Machinery Co., Ltd., Toronto, Ont.

ENGINES, Pumping, Waterworks.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Buffalo Forge Co., Ltd., Montreal, Que.
Canadian Fairbanks Morse Co., Ltd., Montreal, Que.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Inglis, The John Co., Ltd., Toronto, Ont.
International Engineering Works, Ltd., Montreal, Que.
McDougall, The John, Caledonian Iron Works, Ltd., Montreal, Que.
New Burrell-Johnson Iron Co., Ltd., The Yarmouth, N.S.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.
White, R. C., Montral, Que.

ENGINES, Saw-Milling (Portable or on Skids.)

Sawyer & Massey Co., Ltd., Hamilton, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.
Whitelaw, Robert, Woodstock, Ont.

ENGINES, Producer Gas.

Berg Machinery Mfg. Co., Ltd., Toronto, Ont.
Canada Producer & Gas Engine Co., Ltd., Barrie, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Fairbanks Morse Co., Ltd., Montreal, Que.
Waterloo Mfg. Co., Ltd., The, Waterloo, Ont.

ENGINES, Stationary, Horizontal and Vertical (Steam.)

Beauceville, La Fonderie de, Beauceville East, Que.
Bell, The Robert, Engine & Thresher Co., Ltd., Seaforth, Ont.
Bertrand, La Cie, F. X., Mfg., Ltee., St. Hyacinthe, Que.
Bruce Agricultural Works, The, Teeswater, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Fairbanks Morse Co., Ltd., Montreal, Que.
Canadian Sirocco Co., Ltd., Windsor, Ont.
Collingwood Shipbuilding Co., Ltd., Collingwood, Ont.
Crown Engine & Machinery Co., Montreal, Que.
Drolet, F. X., Quebec, Que.
Dunbar Engine & Machinery Co., Woodstock, N. B.
Fleming, James, St. John, N.B.
General Car & Machinery Works, Montmagny, Que.
Goldie & McCulloch Co., Ltd., The, Galt, Ont.
Gosselin, J. A., La Compagnie, Drummondville, Que.
Hamilton Motor Works, The, Hamilton, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Hunter Bridge & Boiler Co., Ltd., Kincardine, Ont.
Inglis, The John Co., Ltd., Toronto, Ont.
International Engineering Works, Ltd., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Leonard E. & Sons, London, Ont.
London Concrete Machinery Co., Ltd., London, Ont.
Long, The E., Mfg. Co., Ltd., Orillia, Ont.
Marine Iron Works, Victoria, B.C.
Marsh & Henthorn, Ltd., Belleville, Ont.
Martin Pump & Machine Co., Toronto, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.
McKeough & Trotter, Ltd., Chatham, Ont.
Midland Engine Works, Co., Midland, Ont.
Millar Bros. & Sons, Ltd., Montreal, Que.
Moir, W. & A., Halifax, N.S.
New Burrell-Johnson Iron Co., Ltd., Yarmouth, N. S.
Owen Sound Iron Works Co., Ltd., Owen Sound, Ont.
Oxford Foundry & Machine Co., Ltd., Oxford, N. S.
Park Brothers, Chatham, Ont.
Payette, The P., Co., Penetanguishene, Ont.
Plessisville Foundry Co., Ltd., The, Plessisville, Que.
Polson Iron Works, Ltd., Toronto, Ont.
Ross & Howard Iron Works, Co., Ltd., Vancouver, B.C.
St. John Iron Works, Ltd., St. John, N.B.
Savoie Guay, La Compagnie, Plessisville Station, Que.
Selby & Youlden, Ltd., Kingston, Ont.
Sheldon's, Ltd., Galt, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Stevenson Boiler & Engine Works, Petrolea, Ont.
Stewart, Bruce, & Co., Ltd., Charlottetown, P.E.I.
Stratford Mill Building Co., Ltd., The, Stratford, Ont.
Vancouver Engineering Works, Ltd., Vancouver, B.C.
Victoria Machinery Depot Co., Ltd., Victoria, B.C.
Victoriaville Foundry Co., Victoriaville, Que.
Vulcan Iron Works, Ltd., Winnipeg, Man.
Waterous Engine Works Co., Ltd., Brantford, Ont.
White, R. C., Montreal, Que.
Whitefield, The John, Co., Toronto, Ont.
Whitelaw, Robert, Woodstock, Ont.
Williams, A. R., Machinery Co., Ltd., Toronto, Ont.
Williamson, J. F., St. John, N.B.

ENGINES, Steam Traction, Plowing and Threshing.

Bell, The Robt., Engine & Thresher Co., Ltd., Seaforth, Ont.
Bertrand, La Cie, F. X., Mfg., Ltee., St. Hyacinthe, Que.
Canadian Fairbanks Morse Co., Ltd., Montreal, Que.
Drolet, F. X., Quebec, Que.
Emerson-Brantingham Co., Winnipeg, Man.
General Car & Machinery Works, Montmagny, Que.
Gilson Mfg. Co., Ltd., Guelph, Ont.
Goodison, The John, Thresher Co., Ltd., Sarnia, Ont.
Macdonald Thresher Co., Ltd., The, Stratford, Ont.
New Hamburg Mfg. Co., Ltd., New Hamburg, Ont.
Park Brothers, Chatham, Ont.
Peterson Bros. Iron Works, Winnipeg, Man.
Sawyer & Massey Co., Ltd., Hamilton, Ont.
Waterloo Mfg. Co., Ltd., The, Waterloo, Ont.
White, The Geo., & Sons, Ltd., London, Ont.

ENGRAVERS, Brass.

Patterson & Heward, Toronto, Ont.
Toronto Stamp & Stencil Works, Ltd., Toronto, Ont.

ENGRAVERS, Jewelry and Silverware.

Birks, Henry, & Sons, Ltd., Montreal, Que.
Ellis, P. W., & Co., Ltd., Toronto, Ont.
Lees, Geo. H., & Co., Ltd., Hamilton, Ont.
Porte & Markle, Ltd., Winnipeg, Man.
Ryrie Bros., Ltd., Toronto, Ont.
Zock, J. J., & Co., Ltd., Toronto, Ont.

ENGRAVERS, Music... .. ..

Whaley, Ryce & Co., Ltd., Toronto, Ont.

ENGRAVERS, Steel and Copper Plate.

Alexander & Cable Lithographing Co., Ltd., Toronto, Ont.
American Bank Note Co., Ottawa, Ont.
Benallack Lithographing & Printing Co., Ltd., Montreal, Que.
British American Bank Note Co., Ltd., Montreal, Que.
Bulman Bros., Ltd., Winnipeg, Man.
Consolidated Lithographing & Mfg. Co., Ltd., Montreal, Que.
Crown Lithographing Co., Ltd., Ottawa, Ont.
Esdale Press, Ltd., The, Ottawa, Ont.
Federated Press, Ltd., The, Montreal, Que.
Flavelling, C. H., St. John, N. B.
Gilmour, J. T., & Co., Montreal, Que.
Green, R. H. & Son, St. John, N.B.
Harris Lithographing Co., Toronto, Ont.
Hart, S. R., & Co., Toronto, Ont.
Hicks Engraving Co., Ltd., Calgary, Alta.
Hough Lithographing Co., Ltd., Toronto, Ont.
Plummer, A. S., St. John, N.B.
Kieran, Crawford & Gray, Ltd., Montreal.
Rolph & Clark, Ltd., Toronto, Ont.
Smith, The David, Engraving & Lithographing Co., Toronto, Ont.
Stone, Ltd., Toronto, Ont.
Wesley, F. C., St. John, N.B.

ENGRAVERS, Wood.

Alexander Engraving Co., Ltd., Toronto, Ont.
Brigdens, Ltd., Toronto, Ont.
Grip, Ltd., Toronto, Ont.
Hood-Sandham Co., Ltd., The, Toronto, Ont.
Jones, The J. L., Engraving Co., Ltd., Toronto, Ont.
Legg Bros., Ltd., Toronto, Ont.
National Electrotype & Stereotype Co., Ltd., Toronto, Ont.
Ontario Engraving Co., The, Hamilton, Ont.
National Printing Co., The, Montreal, Que.
Photo Engravers, Ltd., Toronto, Ont.
Ransom Engraving Co., Ltd., Winnipeg, Man.
Reid Press, Ltd., The, Hamilton, Ont.

ENGRAVING IN COLORS.

Brigdens, Ltd., Toronto, Ont.
Grip, Ltd., Toronto, Ont.
Hood-Sandham Co., Ltd., Toronto, Ont.
Legg Brs., Ltd., Toronto, Ont.
London Printing & Lithographing Co., Ltd., London, Ont.
Ontario Engraving Co., The, Hamilton, Ont.
Reid Press, Ltd., The, Hamilton, Ont.
Roberts Engraving Co., London, Ont.
Southam Press, Ltd., Montreal, Que.
Stone, Ltd., Toronto, Ont.

ENGRAVING, Map. (See also Maps.)

Bulman Bros., Ltd., Winnipeg, Man.
Consolidated Lithographing & Mfg. Co., Ltd., Montreal, Que.
London Printing & Lithographing Co., Ltd., London, Ont.
Stone, Ltd., Toronto, Ont.

ENGRAVING, Photo (Half Tone and Line on Copper or Zinc.)

Alexander Engraving Co., Ltd., Toronto, Ont.
Alexander & Cable Lithographing Co., Ltd., Toronto, Ont.
Angell Engraving Co., Vancouver, B.C.
Benallack Lithographing & Printing Co., Ltd., Montreal, Que.
Brigdens, Ltd., Toronto, Ont.
Brown-Searle Printing Co., Toronto, Ont.
Byron, May Co., Ltd., Edmonton, Alta.
Colonist Printing and Publishing Co., Ltd., Victoria, B.C.
Crown Lithographing Co., Ltd., Ottawa, Ont.
Dennison Engraving Co., Montreal, Que.
Dominion Engraving Co., Ltd., Vancouver, B.C.
Eaton, The T., Co., Ltd., Toronto, Ont.
Grip, Ltd., Toronto, Ont.
Hicks Engraving Co., Ltd., Calgary, Alta.
Hood-Sandham Co., Ltd., Toronto, Ont.
Jones, The J. L. Engraving Co., Ltd., Toronto, Ont.
Legg Bros., Ltd., Toronto, Ont.
McAlpine Publishing Co., Ltd., Halifax, N.S.
McDermid Engraving Co., Ltd., Edmonton, Alta.
Montreal Engravers, Ltd., Montreal, Que.
Mortimer & Co., Ltd., Ottawa, Ont.
National Electrotype & Stereotype Co., Ltd., The, Toronto, Ont.
Ontario Engraving Co., Hamilton, Ont.
Ottawa Photo Engraving Co., Ottawa, Ont.
Patrie Publishing Co., Ltd., La, Montreal, Que.
Photo Engravers, Ltd., Toronto, Ont.
Presse Publishing Co., Ltd., La, Montreal, Que.
Ransom Engraving Co., Ltd., Winnipeg, Man.
Rapid Electrotype Co. of Canada, Montreal, Que.
Reid Press, Ltd., The, Toronto, Ont.
Roberts Engraving Co., London, Ont.
Smeaton Bros., Montreal, Que.
Standard Photo Engraving Co., Ltd., Montreal, Que.
Stone, Ltd., Toronto, Ont.
Stovel Co., Winnipeg, Man.
Switzer Engraving Co., Halifax, N.S.
Wesley, F. C. Co., St. John, N.B.
Wilcox Engraving Co., Toronto, Ont.

ENSILAGE CUTTERS, Blower Attachment.

Bateman-Wilkinson Co., Ltd., Toronto, Ont.
Bell, B., & Son Co., Ltd., St. George, Ont.
Bessette, La Cie, J. & S., Ltd., Iberville, Que.
Bruce Agricultural Works, The, Teeswater, Ont.
Fleury's, J., Sons, Aurora, Ont.
Gilson Mfg. Co., Ltd., Guelph, Ont.
Hamilton, Peter, Co., Ltd., Peterborough, Ont.
Macdonald Thresher Co., Ltd., The, Stratford, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Moody, The Matthew, & Sons Co., Terrebonne, Que.
Waterloo Mfg. Co., Ltd., The, Waterloo, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.
White, The Geo., & Sons Co., Ltd., London, Ont.

ENVELOPES.

Atlantic Lithographing Co., St. John, N.B.
Barber-Ellis, Ltd., Toronto, Ont.
Bouvier & Hutchison, Toronto, Ont.
Business Systems, Ltd., Toronto, Ont.
Canada Envelope Co., Montreal, Que.
Davis & Henderson, Ltd., Toronto, Ont.
Dawson, Chas. F., Ltd., Montreal, Que.
Dawson, W. V., & Co., Montreal, Que.
Dominion Envelope Co., Ltd., Toronto, Ont.
"5 in 1" Letter Envelope Co., Ltd., The, Toronto, Ont.
Gage, W. J., & Co., Ltd., Toronto, Ont.
Harris Lithographing Co., Toronto, Ont.
Hart, S. R., & Co., Toronto, Ont.
Lawson & Jones, Ltd., London, Ont.
Morton, Phillips & Co., Montreal, Que.
Pearce Envelope Co., Toronto, Ont.
Reason, H. T., & Co., London, Ont.
Rolland Paper Co., Ltd., Montreal, Que.
Rolph & Clark, Ltd., Toronto, Ont.
Warwick Bros. & Rutter, Ltd., Toronto, Ont.
Wilson Stationery Co., Ltd., The, Winnipeg, Man.

ERGOT.—The ergot of rye used in medicine are the ovaries in a diseased condition produced by a fungus. The active principle, ergotine, is also a commercial article.

ERIGERON.—From the fleabane of North America, a medicinal oil is extracted.

ERMINE, or Stoat, a small animal of the marten family. In winter the fur turns white, and is then used for collars, coat-linings, &c. Norway, Siberia, and North America are the producing countries.

ESCUTCHEONS.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.

Hahn Brass Co., Ltd., The, New Hamburg, Ont.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Stratford Brass Co., Ltd., The, Stratford, Ont.

ESPARTO, a grass which grows in Spain and along the coast of Africa in Algeria, Tunis, and Tripoli. The greater part is sent to England for the manufacture of paper. In North Africa it is called Alfa or Halfa. Lygeum spartum is sold with it and yields a similar fibre.

ESSENCES. (See Extracts, Flavoring.)

ETHER, a colourless, transparent, and very volatile liquid formed by the action of sulphuric acid on alcohol. It is very inflammable, and owing to its rapid evaporation, lowers the temperature of any object with which it is in contact. It is a good solvent for oils and fats and some other matters, and the compound ethers—acetic ether, formic ether, &c.—are very fragrant.

EUCALYPTUS, a genus of Myrataceæ, which yield valuable resins, timber, and oil. The trees are some of the most majestic of Australia and Tasmania, and attain an immense height. From the leaves a volatile oil is distilled, which is used in soap manufacture, to dilute perfumes, and in varnishes. It is well known also in pharmacy.

EUPHORBIUM, an extremely pungent juice obtained from various species of Euphorbia in the Canaries, Morocco, Arabia, and the East Indies.

EVAPORATORS, Fruit.

Brown, Boggs Co., Ltd., Hamilton, Ont.
Bindner Bros., Alvinston, Ont.
Canada Steam Pump & Machine Co., Ltd., Toronto, Ont.
Matchell & Sayles, Waterford, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.

EVAPORATORS, Sap.

Desjardins, J. A., Rigaud, Que.
Grimm Mfg. Co., Ltd., The, Montreal, Que.
Small Bros., Dunham, Que.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Steel Trough & Machine Co., Ltd., The, Tweed, Ont.

EXCELSIOR.

British Columbia Bedding & Upholstering Co., Ltd., Vancouver, B.C.
Delaney & Pettit, Ltd., Toronto, Ont.
Gordon, John J., St. John, N.B.
Restmore Mfg. Co., Ltd., Vancouver, B.C.
Rutherford, The Wm., & Sons Co., Ltd., Montreal, Que.
Saguenay Mills, Ltd., Montreal, Que.
Welwood, F. J., & Co., Ltd., Winnipeg, Man.

EXPLOSIVES. (See also Dynamite, Powder, Blasting, Etc.)

Canadian Explosives, Ltd., Montreal, Que.
Curtis's & Harvey (Canada), Ltd., Montreal, Que.
Dominion Explosives, Ltd., Ottawa, Ont.
Energite Explosives Co., Ltd., Montreal, Que.
General Chemical Produce & Explosives Co., 207 St. James St., Montreal, Que.
Howard, A. T., Co., Sherbrooke, Que.
Rack A Rack Co., Sherbrooke, Que.

EXTINGUISHERS, Fire.

Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Brandon Fire Engine Co., Ltd., The, Brandon, Man.
Canadian H. W. Johns-Manville Co., Ltd., The, Toronto, Ont.
Garth Co., The, Montreal, Que.
McGuire, W. J., Ltd., Toronto, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Ormsby, A. B., Co., Ltd., Toronto, Ont.
Rockwood Sprinkler Co. of Canada, Ltd., The, Montreal, Que.
Seagrave, W. E., & Co., Walkerville, Ont.
Stevenson Boiler & Engine Works, Petrolia, Ont.
Wilson & Cousins, Toronto, Ont.

EXTINGUISHERS, Fire (Chemical.)

General Fire Equipment Co., Ltd., The, Toronto, Ont.
Macdonald Mfg. Co., Ltd., Toronto, Ont.
Mitchell, The Robt., Co., Ltd., Montreal, Que.-

EXTRACTS, Beef.

Bovril, Ltd., Montreal, Que.

EXTRACTS, Flavoring.

Barbour, G. E. Co., Ltd., St. John, N.B.
Blackwoods, Ltd., Winnipeg, Man.
Blue Ribbon, Ltd., Winnipeg, Man.
Braid, Wm., & Co., Vancouver, B.C.
Bush, W. J. & Co., (Canada), Ltd., Montreal, Que.
Canadian Cocoanut Co., Montreal, Que.
Canadian Spice Mill, The, Quebec, Que.
Cochrane, C. H. & Co., Montreal, Que.
Codville Co., Ltd., The, Winnipeg, Man.
Dalley, F. F. Co., of Hamilton, Ltd., Hamilton, Ont.
Dalton Bros., Toronto, Ont.
Dearborn & Co., Ltd., St. John, N.B.
Dominion Coffee and Spice Mills Co., Montreal, Que.
Downey, W. P., Montreal, Que.
Drake, Francis, New Glasgow, N.S.
Dyson Co., The, Winnipeg, Man.
Eby-Blain, Ltd., Toronto, Ont.
Empress Mfg. Co., Ltd., Vancouver, B.C.
Georgeson & Co., Ltd., Calgary, Alta.
Gorman, Eckert & Co., Ltd., London, Ont.
Gun-Munro Spice Co., Ltd., Brantford, Ont.
Hayhoe, R. B., & Co., Toronto, Ont.
Herron-LeBlanc, Ltd., Montreal, Que.
Hugman, A. W., Ltd., Montreal, Que.
Hutchinson & Peterson, Toronto, Ont.
Imperial Cocoa & Spice Co., Ltd., Hamilton, Ont.
Imperial Extract Co., Toronto, Ont.
Jameson, W. A., Coffee Co., Victoria, B.C.
Jersey Cream Factories, Ltd., Hamilton, Ont.,
Jonas, Henri & Co., Montreal, Que.
Kelly, Douglas & Co., Ltd., Vancouver, B.C.
Lowes, The J. M. Co., Ltd., Toronto, Ont.
Litster Pure Food Co., Ltd., Toronto, Ont.
Lytle, The T. A. Co., Ltd., Toronto, Ont.
McLarens, Ltd., Hamilton, Ont.
National Extracts Co., Inc., Montreal, Que.
Parke & Parke, Hamilton, Ont.
Patrick, W. G., Toronto, Ont.
Pioneer Coffee & Spice Mills, Ltd., The, Victoria, B.C.
Puddington, Wetmore, Morrison, Ltd., St. John, N.B.
Pure Gold Mfg. Co., Ltd., Toronto, Ont.
Richardson Mfg. Co., Hamilton, Ont.
Robinson Mfg. Co., Toronto, Ont.
Rose & Laflamme, Ltd., Montreal, Que.
St. Louis Preserving Co., Ltd., Montreal, Que.
Sapho Mfg. Co., Ltd., Montreal, Que.
Schwartz, W. H. & Sons, Halifax, N.S.
Seely Mfg. Co., Ltd., Windsor, Ont.
Smith, The J. Hungerford Co., Ltd., Toronto, Ont.
Stearns, Frederick & Co., of Canada, Ltd., Windsor, Ont.
Stuart Bros., Niagara Falls, Ont.
White Star Mfg. Co., The, Winnipeg, Man.

EXTRACTS, Fluid, Solid and Powdered.

Cowan, John, & Co., Ltd., Montreal, Que.
Frosst, Chas. F., & Co., Montreal, Que.
Mason's, Ltd., Toronto, Ont.
Parke, Davis & Co., Walkerville, Ont.
Saunders, W. E., & Co., London, Ont.
Stearns, Frederick, & Co., of Canada, Ltd., Windsor, Ont.
Wampole, Henry K., & Co., Ltd., Perth, Ont.

EXTRACT, Malt.

Grant's Spring Brewery Co., Ltd., Hamilton, Ont.
O'Keefe Brewery Co., of Toronto, Ltd., Toronto, Ont.
Rice Malting Co., Winnipeg, Man.
Sleeman & Sons, Ltd., Guelph, Ont.
Walkerville Brewing Co., Ltd., The, Walkerville, Ont.

EXTRACTS, Tanning (Hemlock Bark.)

Millerton Extract Co., Ltd., Millerton, N.B.

EYE BOLTS.

Canadian Billings & Spencer, Ltd., Welland, Ont.
Steel Co., of Canada, Ltd., Toronto, Ont., and Montreal, Que.

EYE GLASSES.

Consolidated Optical Co., Ltd., Toronto, Ont.

EYE SHIELDS, Horse.

Arlington Co., of Canada, Ltd., The, Toronto, Ont.

F

FACINGS, Foundry.

Alpha Chemical Co., Ltd., The, Berlin, Ont.
Hamilton Facing Mill Co., Ltd., Hamilton, Ont.

FACINGS, Foundry, Talc.

Gillespie, Geo. H., & Co., Madoc, Ont.

FANS.—In Europe the industry of fan-making is especially flourishing in France. Paper, fine parchment, satin, crape, cotton, lace, or ostrich feathers are mounted on sticks of wood, ivory, celluloid, metal, or mother-of-pearl, some times richly inlaid. Austria also has factories for fan-making, as well as Germany and Spain. Fans of bamboo covered with paper are exported in large numbers from China and Japan.

FAN and EXHAUST SYSTEMS.

Canadian Sirocco Co., Ltd., Windsor, Ont.
Heller-Aller C., Ltd., Windsor, Ont.
Sheldon's, Ltd., Galt, Ont.
Thetford Cie, Limitee, La Fonderie de, Thetford Mines, Que.
Thompson Mfg. Co., Ltd., Grand Bay, N.B.
Turner, John, & Son, Toronto, Ont.

FANNING MILLS.

Desjardins, La Cie., St. Andre, Kamouraska Co., Que.
Gray-Sons-Campbell, The Wm., Ltd., Chatham, Ont.
Hero Mfg. Co., Ltd., Winnipeg, Man.
National Mfg. Co., Ltd., Ottawa, Ont.
Templin Mfg. Co., The, Fergus, Ont.
Tudhope-Anderson, Co., Ltd., Orillia, Ont.

FANS, Electric.

Canadian Buffalo Forge Co., Ltd., Montreal, Que.
Fisher Electric & Mfg. Co., Ltd., Toronto, Ont
Turner, John, Son, Toronto, Ont.

FANS, Mine Ventilating.

Matheson, I., & Co., Ltd., New Glasgow, N.S.
Thettford Cie Limitee, La Fonderie de, Thetford Mines, Que.

FARE-BOXES.

Coleman Fare Box Co., The, Tottenham, Ont.

FARINA, Potato.

Canada Starch Co., Ltd., The, Montreal, Que.
Prowse & Sons, Murray Harbor, P.E.I.
St. Peter's Starch Co., Ltd., St. Peters, P.E.I.
(See Cocks, Compression, etc.)

FASTENERS, Door, Window, Shutter, Etc.

Belleville Hardware & Lock Mfg. Co., Ltd., Belleville, Ont.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Electric Meter & Stamping Co., Ltd., The, New Hamburg, Ont.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Peterborough Lock Mfg. Co. Ltd., Peterborough, Ont.

FASTENERS, Nut and Bolt.

Dominion Nut & Bolt Fastener Co., Ltd., Montreal, Que.

FEATHERS.—The great bulk of the feathers dealt with in commerce are of the common kinds used for beds and upholstery. The feathers of ducks, geese, and gulls are much used. The down of the duck and goose are most common, the best being that of the eider, while swan's down is very expensive. Among ornamental feathers the principal are ostrich, maraboo, grebe, argus, heron, bird of paradise, and humming-bird, which are dealt with under those heads. **(See also BIRD-SKINS.)**

FEATHERS.

Alaska Feather & Down Co., Ltd., Montreal, Que.
Canadian Flower & Feather Mfg. Co., The, Montreal, Que.
Dominion Flower & Feather Mfg. Co., Montreal, Que.
Whitworth & Restall, Toronto, Ont.

FEATHERS, Ostrich.

Canadian Flower & Feather Mfg. Co., The, Montreal, Que.
Dominion Ostrich Feather Co., Ltd., Toronto.

FEEDERS, Self.

Canadian Rumely Co., Ltd., Toronto, Ont.
Goodison, The John, Thresher Co., Ltd., Sarnia, Ont.
Smith Stacker & Feeder Co., Ltd., Hamilton.
Watt, R., Machine Works Co., Ridgetown, Ont.

FEEDS.

Alberta Milling Co., Ltd., The, Edmonton, Alta.
Atlantic Milling Co., Ltd., Pictou, N.S.
Aurora Flouring Mills, Aurora, Ont.
Barry, E. A., Montreal, Que.
Brown, H. & Sons, Carleton Place, Ont.
Calder, Fraser & Co., Dartmouth, N.S.
Campbell Flour Mills Co., Ltd., Peterborough, Ont.
Canadian Cereal & Flour Mills, Ltd., Toronto, Ont.
Canada Flour Mills Co., Ltd., Chatham, Ont.
Chisholm Milling Co., Ltd., Toronto, Ont.
Collingwood Milling Co., The, Collingwood, Ont.
Columbia Flouring Mills Co., Ltd., Enderby, B.C.
Copeland, G. & Sons, Penetanguishene, Ont.
Deseronto Milling Co., Deseronto, Ont.
Dominion Flour Mills, Ltd., Montreal, Que.
Dminion Millers' Association, Toronto, Ont.
Dowd Milling Co., Ltd., Ottawa, Ont.
Dufresne, A. N., St. Cesaire, Que.
Echo Milling Co., Ltd., The, Gladstone, Man.
Edmonton Millling Co., Ltd., Strathcona, Alta.
Ellison Milling Co., Lethbridge, Alta.
Georgian Bay Milling & Power Co., Ltd., Midland, Ont.
Glenora Milling Co., Glenora, Ont.
Gunn & Co., Ltd., Halifax, N.S.
Hamilton Milling Co., Hamilton, Ont.
Johnson & Macdonald, New Glasgow, N.S.
Laing Bros., Winnipeg, Man.
Lake of the Woods Milling Co., Ltd., Montreal, Que.
Lukes, Samuel, Bradford, Ont.
Lussier, Albert, Varennes, Que.
Mackay, The John, Co., Ltd., Bowmanville, Ont.
Maple Leaf Milling Co., Ltd., Brandon, Man.
Maritime Cornmeal Mills, St. John, N.B.
McDonald & Robb, Valleyfield, Que.
McKillop, A. & Sons, Ltd., West Lorne, Ont.
McLean Milling Co., Ltd., Amherst, N.S.
McLeod Milling Co., Ltd., Stratford, Ont.
Metcalfe Milling Co., Ltd., Portage La Prairie, Man.
Morden Milling Co., Morden, Man.
Noble, Estate of Robert, Norval, Ont.
Ogilvie Flour Mills Co., Ltd., Montreal, Que.
Oliver, R. W., Montreal, Que.
Pearce Co., Ltd., The, Marmora, Ont.

Pembroke Milling Co., Ltd., The, Pembroke, Ont.
Quance Bros., Delhi, Ont.
Quaker Oats Co., The, Peterborough, Ont.
Regina Flour Mills, Ltd., Regina, Sask.
Renfrew Flour Mills, Ltd., Renfrew, Ont.
Rice Malting Co., Winnipeg, Man.
Robin Hood Mills, Ltd., Calgary, Alta.
St. John Milling Co., Ltd., St. John, N.B.
Seaforth Milling Co., Ltd., The, Seaforth, Ont.
Shawville Milling Co., Ltd., Shawville, Que.
Shirk, Peter, Baden, Ont.
Tavistock Milling Co., Ltd., Tavistock, Ont.
Taylor, The T. H. Co., Ltd., Chatham, Ont.
Vick, George & Sons, Orillia, Ont.
Western Canada Flour Mills Co., Ltd., Toronto, Ont., and Winnipeg, Man.
Western Milling Co., Ltd., The, Calgary, Alta.
Wigle, Colin & Son, Amherstburg, Ont.
Wood Milling Co., Hamilton, Ont.

FELDSPAR, the name given to a group of minerals, closely related in crystalline form and a silicates of alumina, either potash soda or lime. They occur in crystals and crystalline masses, vitreous in lustre and breaking rather easily in two directions at right angles to each other or nearly so. The colours are usually white, flesh-red, bluish or greenish. The common potash spars are most used in commerce. Soda-spar or albite is not so useful. The decomposition of feldspars yield mineral kaolin or China clay that is found so abundantly in the Southern part of England, and used so extensively in the making of fine pottery. (**See KAOLIN.**) Many other deposits of China-clay occur in other parts of the world and one that seems to promise well has recently been discovered in Quebec. Feldspar itself, particularly the potash variety, is also ground up and used in the pottery industry.

Most of the pottery industries are situated in districts where a local supply of pottery materials are easily obtainable. Hence it is only the very high-grade potash feldspars that are shipped any distance. The only countries that are supplying these high-grade feldspars at the present time are Norway, Sweden and Canada. Those from Norway and Sweden are shipped to the potteries in Europe and those from Canada go only to United States. In 1913 the output in Norway was as follows: 32,796 metric tons of 2,204 pounds, of feldspar in the rough and 53,047 metric tons of ground feldspar. The shipments from Sweden in the same year were 37,655 metric tons in the rough. The shipments from Canada in the same year were 13,376 short tons of 2,000 pounds, shipped in the rough.

A few years ago a deposit of a particular variety of soda feldspar was discovered in Labrador and called Labradorite. When polished it has a beautiful chatoyant effect. It is used for ornamental table tops and decorations.

One of the finest deposits of potash feldspar occurs and is being worked in Eastern Ontario, in the County of Frontenac. The average annual production is over 12,000 tons. Practically the whole of the output is exported to the United States, where it is consumed in the potteries of New Jersey and Ohio.

FELDSPAR, Ground.

Dominion Feldspar Co., Ltd., Toronto, Ont.
Dominion Improvement & Development Co., Perth, Ont.
Kingston Feldspar & Mining Co., Kingston, Ont.
O'Brien & Fowler, Hope Bldg., Ottawa, Ont.
Wellington, S., Madoc, Ont.

FELT, a material made of wool, damped and pressed between heated rollers, which by a lateral motion cause the innumerable hairs which cover the fibres to interlock. Felt is made into carpets and gun-wads, is used to cover pianoforte hammers, &c. Roofing felt is a coarse kind saturated with pitch or coal-tar. Felt hats are made of wool, fur, and silk, the shorter fibres of Australian wool being much used for this purpose.

FELT, Boot and Shoe.

Berlin Felt Boot Co., Ltd., The, Berlin, Ont.
Canada Felting Co., The, St. Jacobs, Ont.
Elmira Felt Co., Ltd., Elmira, Ont.
Great West Felt Co., Ltd., The, Elmira, Ont.
Kimmel Felt Co., Ltd., Berlin, Ont.

FELT, Carpet.

Bird, F. W., & Son, Hamilton, Ont.
Eastern Paper Co., Ltd., St. Basile Station, Portneuf Co., Que.
Ford, J., & Co., Portneuf Station, Que.
Ford, Rowland, & Son, Portneuf Station, Que.
McArthur, Alex., & Co., Ltd., Montreal, Que.
McComb, J. H., Ltd., Montreal, Que.
Montreal Paper Co., Ltd., Portneuf Station, Que.
Stutt, Jas., & Sons, West Flamboro, Ont.

FELT, Cotton and Jute.

Bauer, A., & Co., Waterloo, Ont.
National Mattress, Felt & Batting Co., Toronto, Ont.
Smith Mfg. Co., Ltd., Toronto, Ont.
Welwood, F. J., & Co., Ltd., Winnipeg, Man.

FELT, Paper and Pulp Makers'.

Ayers, Ltd., Lachute Mills, Que.
Bates & Innes, Carleton Place, Ont.
Cosmos Cotton Co., Ltd., Yarmouth, N.S.
Lachute Knitting Co., Ltd., The, Lachute, Que.
Penman's, Ltd., Paris, Ont.

FELT, Roofing.

Bird, F. W., & Son, Hamilton, Ont.
Eastern Paper Co., Ltd., St. Basile Station, Portneuf Co., Que.
Ford, J., & Co., Portneuf Station, Que.
Hamilton Tar Distilling Co., The, Hamilton, Ont.
McArthur, Alex., & Co., Ltd., Montreal, Que.
Merrick-Anderson Co., Winnipeg, Man.
Montreal Paper Co., Ltd., Portneuf Station, Portneuf Co., Que.
Paterson Mfg. Co., Ltd., The, Toronto, Ont., and Montreal, Que.
Walker, .J R., & Co., Montreal, Que.

FELT, Sound Deadening.

Bird, F. W., & Son, Hamilton, Ont.
Booth Felt Co., Ltd., Gananoque, Ont.
Ford, Rowland & Son, Portneuf Station, Que.
Montreal Paper Co., Ltd., Portneuf Station, Que.
Sidney Rubber Roofing Co., Ltd., Sidney, B.C.

FELT, Tarred.

Canadian Roofing Mfg. Co., Ltd., Windsor, Ont.
Eastern Paper Co., Ltd., St. Basile Station, Portneuf Co., Que.
McArthur, Alex., & Co., Ltd., Montreal, Que.
McComb, J. H., Ltd., Montreal, Que.
Merrick-Anderson Co., Winnipeg, Man.
Paterson Mfg. Co., Ltd., The, Toronto, Ont., and Montreal, Que.
Sidney Rubber Roofing Co., Sidney, B.C.

FENCE, Ornamental, Iron and Wire.

Banwell-Hoxie Wire Fence Co., Ltd., Hamilton, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Estey Bros. Co., Montreal.
Frost Wire Fence Co., Ltd., Hamilton, Ont.
Hartley Iron & Wire Works, Vancouver, B.C.
Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Johnson, C. H. & Sons, Ltd., Montreal, Que.
Lamb, H. R., Fence Co., Ltd., London, Ont.
McGregor-Banwell Fence Co., Ltd., Walkerville, Ont.
McOuat, T. & Son, Lachute Mills, Que.
Meadows, Geo. B., Wire, Iron and Brass Works, Ltd., Toronto, Ont.
Munro Steel and Wire Works, Ltd., Winnipeg, Man.
Munro Wire Works, New Glasgow, N.S.
Page Wire Fence Co., Ltd., Walkerville, Ont.
Partridge & Sons, Kingston, Ont.
Schmidt & Co., Winnipeg, Man.
Steel Co. of Canada, Ltd., Montreal, Que.
Winnipeg Wire & Iron Works, Winnipeg, Man.

FENCING, Coiled Wire.

Banwell-Hoxie Wire Fence Co., Ltd., Hamilton, Ont.
Estey Bros. Co., Montreal.
McGregor-Banwell Fence Co., Ltd., Walkerville, Ont.

FENCING, Wire, Woven.

Anthony Wire Fence Co. of Canada, Ltd., Walkerville, Ont.
Banwell-Hoxie Wire Fence Co., Ltd., Hamilton, Ont.
Canadian Steel & Wire Co., Ltd., Hamilton, Ont.
Estey Bros. Co., Montreal.
Frame & Hay Fence Co., Ltd., The, Stratford, Ont.
Frost Wire Fence Co., Ltd., Hamilton, Ont.
Great West Wire Fence Co., Ltd., Winnipeg, Man.
Greening, The B., Wire Co., Ltd., Hamilton, Ont.
Ideal Fence Co., Ltd., The, Winnipeg, Man.
Lamb, H. R., Fence Co., Ltd., London, Ont.
McGregor-Banwell Fence Co., Ltd., Walkerville, Ont.
Manitoba Anchor Wire Fence Co., Ltd., The, Winnipeg, Man.
Meadows, Geo. B., Wire, Iron and Brass Works, Ltd., Toronto, Ont.
Munro Steel and Wire Works, Ltd., Winnipeg, Man.
New Brunswick Wire Fence Co., Ltd., Moncton, N.B.
Owen Sound Wire Fence Co., Ltd., Owen Sound, Ont.
Page Wire Fence Co., Ltd., Walkerville, Ont.
Pittsburg Perfect Fence Co., Ltd., Hamilton, Ont.
Sarnia Fence Co., Ltd., Sarnia, Ont.
Selkirk Fence Co., Hamilton, Ont.
Standard Wire Fence Co., of Woodstock, Ltd., The, Woodstock, Ont.
Steel Co. of Canada, Ltd., Montreal, Que.
Suttle, J. Malcolm, Winnipeg, Man.

FENCING, Wrought Iron.

Bell & Wire Mfg. Co., Ltd., Toronto, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Ornamental Iron Co., Toronto, Ont.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Estey Bros. Co., Montreal.
Latta, D. G., Ltd., Edmonton, Alta.
Partridge & Sons, Kingston, Ont.
Watson, John, & Son, of Montreal, Ltd., Montreal, Que.
Westminster Iron Works, New Westminster, B.C.
Winnipeg Wire & Iron Works, Winnipeg, Man.

FENDERS, Brass.

Beaver Brass Mfg. Co., Ltd., The, Toronto, Ont.
Estey Bros. Co., Montreal.
Canadian Ornamental Iron Co., Toronto, Ont.
Chadwick Brass Co., Ltd., The, Hamilton, Ont.
Greening, The B., Wire Fence Co., Ltd., Hamilton, Ont.

FENDERS, Iron and Wire.

Canadian Ornamental Iron Co., Toronto, Ont.
Dennis Wire & Iron Works, Ltd., London, Ont.
Estey Bros. Co., Montreal.
Greening, The B., Wire Fence Co., Ltd., Hamilton, Ont.
Mitchell, The Robert Co., Ltd., Montreal, Que.
Winnipeg Wire & Iron Works, Winnipeg, Man.

FENNEL.—The seeds of the common fennel are largely used in Germany as a condiment and medicine. The seeds contain a volatile oil.

FERRO-CHROMIUM.

Goldschmidt Thermit Co., Toronto, Ont.

FERRO SILICON.

Electro-Metals, Ltd., Welland, Ont.
Lake Superior Corporation, The, Sault Ste. Marie, Ont.

FERRO-TITANIUM.

Goldschmidt Thermit Co., Toronto, Ont.

FERTILIZERS.—Mechanical fertilizers are a considerable article of commerce. They may be classed under the following headings:—

Natural phosphate. **(See PHOSPHATES.)**

Basic Slag. **(See PHOSPHATES.)**

Potash Salts. **(See POTASH.)**

Chilian Salts Nitrate. **(See NITRATE.)**

Synthetic Nitrates. **(See NITRATE.)**

Sulphur Lead. **(See SULPHUR.**

Sulphur of Copper. **(See SULPHATE of COPPER.)**

Guano. **(See GUANO.)**

Sulphate of Ammonia. **(See AMMONIA.)**

In addition to the above, bones, wood ashes and organic nitrogeneous fertilizers made from the waste products of abbatoirs are used as fertilizers. The principal exporting countries of bones and bone manures are as follows for the year 1912:

	Metric Tons..
British India	111,994
Germany	36,795
Argentine Republic	31,878
China	29,976
Belgium	16,365
France	11,950

FERTILIZERS, Abattoir.

Anglo-Canadian Fertilizer Co., St. John, N.B.
Davies, The Wm., Co., Ltd., Toronto, Ont.
Fowler's Canadian Co., Ltd., Hamilton, Ont.
Harris Abattoir Co., Ltd., The, Toronto, Ont.
Montreal Abattoirs, Ltd., Montreal, Que.
Stone, Wm., Sons, Ltd., Woodstock, Ont.
Swift Canadian Co., Ltd., West Toronto, Ont., and Winnipeg, Man.
Thorntons, Ltd., Brantford, Ont.

FERTILIZERS, Bone, Mineral, Chemical, Fish, Etc.

Anglo-Canadian Fertilizer Co., St. John, N.B.
Canada Glue Co., Ltd., Brantford, Ont.
Capleton Chemical & Fertilizer Co., Buckingham, Que.
Carritte, de B., St. John, N.B.
Colonial Fertilizer Co., Windsor, N.S.
Dominion Sugar Co., Ltd., Wallaceburg, Ont.
Freeman, The W. A. Co., Ltd., Hamilton, Ont.
Harris, W., & Co., Toronto, Ont.
Maritime Fish Corporation, Ltd., Montreal, Que.
Nova Scotia Fertilizer Co., Halifax, N.S.
Provincial Chemical Fertilizer Co., Ltd., St. John, N.B.
Russia Cement Co., St. John, N.B.
Standard Fertilizer Co., Ltd., Smith's Falls, Ont.
Stone, Wm., & Sons, Ltd., Woodstock, Ont.
Victoria Chemical Co., Ltd., Victoria, B.C.

FIBRES.—For animal fibres see under the headings **ALPACA, MOHAIR, CAMEL'S HAIR, HAIR, SILK,** &c. Flax, hemp, and jute, cotton, piassava, Manila hemp, esparto, paper mulberry, sunn hemp, aloe, raphia, and other vegetable fibres are entered separately.

FERTILIZER DRILLS. (See also Seed Drills.

International Harvester Co. of Canada, Ltd., Hamilton, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.

FIBRE BOARD. (See also Millboard, Wallboard, Wood Pulp Board, and Flaxboard.)

Beaver Co., Ltd., Ottawa, Ont.
Grenville Board & Pulp Co., Ltd., Thorold, Ont.

FIELD CULTIVATORS.

Bateman-Wilkinson Co., Ltd., Toronto, Ont.
Bell, B., & Sons, Ltd., St. George, Ont.
Cockshutt Plow Co., Ltd., Brantford, Ont.
Dore, J. B., & Fils, Montreal, Que.
Erie Iron Works, Ltd., St. Thomas, Ont.
Eureka Planter Co., Ltd., The, Woodstock, Ont.
Frost & Wood Co., Ltd., The, Smith's Falls, Ont.
Hamilton, Peter Co., Ltd., Peterborough, Ont.
International Harvester Co. of Canada, Ltd., Hamilton, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Oliver Chilled Plow Works of Canada, Ltd., Hamilton, Ont.
Tudhope-Anderson Co., Ltd., Orillia, Ont.
Verity Plow Co., Ltd., Brantford, Ont.
Vilas, W. F., Cowansville, Que.

FIGS, a genus of trees of the order Urticaceæ. The common fig grows in most of the countries round the Mediterranean. The best dried figs come from Smyrna, and are of three qualities, Eleme, Erbeli, and Aidin. They are not only eaten as fruit, but, particularly in Austria, are mixed with coffee. A spirit also distilled from figs is exported from Smyrna, the East Indies, and America. Other species of figs yield various useful products.

FIGURES, Wax.

Clatworthy & Son, Toronto, Ont.
Dale & Pearsall, Toronto, Ont.
Richardson, A. S., & Co., Toronto, Ont.

FILBERTS. (See NUTS.)

FILES, Office.

Davis & Henderson, Ltd., Toronto, Ont.
Dawson, Charles F., Ltd., Montreal, Que.
Gibb Paper Box Co., Hamilton, Ont.
Globe-Wernicke Co., Ltd., Stratford, Ont.
Hitchings Paper Box Co., Winnipeg, Man.
Library Bureau of Canada, Ltd., Ottawa, Ont.
Office Specialty Mfg. Co., Ltd., Toronto, Ont.
Steel Equipment Co., Ltd., Ottawa, Ont.

FILES, RASPS, Etc.

Disston, Henry & Sons, Ltd., Toronto, Ont.
Hanson-Tilley, J. H. Co., Ltd., Montreal, Que.
Nicholson File Co., Port Hope, Ont.
Simonds-Canada Saw Co., Ltd., Montreal, Que.
Spence, R. & Co., Hamilton, Ont.

FILLERS, Egg Case.

Alberta Box Co., Ltd., Calgary, Alta.
Miller Bros. Co., Ltd., The, Montreal, Que.
Northumberland Paper & Electric Co., Ltd., Campbellford, Ont.
Trent Mfg. Co., Ltd., Trenton, Ont.

FILLERS, Paint, Paper and Soap.

Gillespie, Geo. H., & Co., Madoc, Ont.
International Acheson Graphite Co., Ltd., Niagara Falls, Ont.

FILLERS, Wood.

Berry Bros., Walkerville, Ont.
Brandram-Henderson, Ltd., Montreal, Que.
Glidden Varnish Co., Toronto, Ont.
Imperial Varnish & Color Co., Ltd., Toronto, Ont.
International Varnish Co., Ltd., Toronto, Ont.
Jamieson, R. C., & Co., Ltd., Montreal, Que.
Moore, Benjamin, & Co., Ltd., Toronto, Ont.
Muirhead, A., Co., Ltd., Toronto, Ont.
Ramsay, A., & Son, Co., Montreal, Que.
R. I. W. Damp-Resisting Paint Co., Toronto, Ont.
Scarfe & Co., Brantford, Ont.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
Stephens, G. F., & Co., Ltd., Winnipeg, Man.

FILLET, Leather.

McLaren, The J. C., Belting Co., Ltd., Montreal, Que.
McLaren, D. K., Ltd., Montreal, Que.
Sadler & Haworth, Montreal, Que.

FILMS, Photographic.

Canadian Kodak Co., Toronto, Ont.

FILTER PLANTS.

McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.

FILTER PRESSES.

Perrin, W. R., & Co., Ltd., Toronto, Ont.

FILTER AND PRESS CLOTH.

Cobourg Matting & Carpet Co., Ltd., The, Cobourg, Ont.
Cosmos Cotton Co., Ltd., Yarmouth, N.S.

FILTERS, Oil.

Bowser, S. F., & Co., Toronto, Ont.
Canadian Oil & Waste Saving Machine Co., Ltd., Brockville, Ont.
Darling Bros., Ltd., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

FILTERS, Water, Pneumatic for Pulp Mills.

Belleville Pottery Co., Belleville, Ont.
Burns, John, & Co., Montreal, Que.
Hall Engineering Works, The, Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Prowse, Geo. R., Range Co., Ltd., Montreal, Que.
Sherbrooke Machinery Co., Ltd., Sherbrooke, Que.

FIR. (See TIMBER and WOOD.)

FIREBRICKS. (See CLAY.)

FIRE ALARM APPARATUS.

Canadian May Oatway Fire Alarm Co., Ltd., Winnipeg, Man.
Northern Electric & Mfg. Co., Ltd., Montreal, Que.

FIRE APPLIANCES.

Bennett & Wright Co., Ltd., Toronto, Ont.
Brandon Fire Engine Co., Ltd., The, Brandon, Man.
Garth Co., The, Montreal, Que.
McGuire, W. J., Ltd., Toronto, Ont.
Rockwood Sprinkler Co., of Canada, Ltd., The, Montreal, Que.
Seagrave, W. E., & Co., Walkerville, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

FIRECLAY PRODUCTS. (See also Brick, Fire, Stove and Cupola.)

Clayburn Co., Ltd., The, Vancouver, B.C.
Elk Fire Brick Co., Ltd., Hamilton, Ont.
Hamilton Facing Mill Co., Ltd., Hamilton, Ont.
Hamilton and Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Montreal Fire Brick Works Co., Ltd., The, Montreal, Que.
Standard Clay Products, Ltd., St. John's, Que.

FIRE DEPARTMENT SUPPLIES.

Garth Co., The, Montreal, Que.
Lymburner, Ltd., Montreal, Que.
Mitchell, The Robt., Co., Ltd., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Seagrave, W. E., & Co., Walkerville, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.
Wilson & Cousins, Toronto, Ont.

FIRE ENGINES, Chemical.

Brandon Fire Engine Co., Ltd., The, Brandon, Man.
Seagrave, W. E., & Co., Walkerville, Ont.
Smith Bros., Toronto, Ont.

FIRE ENGINES, Steam and Gasoline.

Seagrave, W. E., & Co., Walkerville, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

FIRE ESCAPES.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Ornamental Iron Co., Toronto, Ont.
Corbet Foundry Co., The, Owen Sound, Ont.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Hutchison & Sticht, Montreal, Que.
Latta, D. G., Ltd., Edmonton, Alta.
McGregor & McIntyre, Ltd., Toronto, Ont.
Meadows Geo. B. Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Reid & Brown, Toronto, Ont.
Regina Foundry, Ltd., Regina, Sask.
Schmidt & Co. Winnipeg, Man.
Shipway Iron Bell & Wire Mfg. Co., Ltd., Toronto, Ont.
Steel Furnishing Co., New Glasgow, N.S.
Toronto Structural Steel Co., Ltd., Toronto, Ont.
Universal Fire Escape Co., Ltd., Montreal, Que.
Watson, John, & Son., Ltd., Montreal, Que.
Westminster Iron Works, New Westminster, B.C.
Whitfield, The John Co., Toronto, Ont.
Winnipeg Wire & Steel Works, Winnipeg, Man.

FIREPROOFING, Gypsum.

Alabastine Co., Paris, Ltd., Paris, Ont.
Crown Gypsum Co., Ltd., Lythmore, Ont.

FIREPROOFING, Metal.

Douglas Bros., Ltd., Toronto, Ont.
Galt Art Metal Co., Ltd., The, Galt, Ont.
Metallic Roofing Co. of Canada Ltd., The, Toronto, Ont.

FIREPROOFING, Terra Cotta and Hollow Tile.

Alberta Clay Products Co., Ltd., Medicine Hat, Alta.
Crandell, E. H., Pressed Brick and Sandstone Co., Calgary, Alta.
Don Valley Brick Works, Toronto, Ont.
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Montreal Concrete Works, Ltd., Halifax, N.S.
Montreal Terra Cotta Lumber Co., Montreal,
National Fire Proofing Co. of Canada, Ltd., Toronto, Ont.
Nova Scotia Clay Works, Ltd., Halifax, N.S.
Redcliff Brick and Coal Co., Ltd., Redcliff, Alta.
Sidney Brick and Tile Co., Ltd., Winnipeg, Man.
Superior Brick Co., Ltd., Fort William, Ont.
Vitrolite Construction Co. of Manitoba, Winnipeg, Man.

FIREWORKS.

Hand Firework Co., Ltd., The, Hamilton, Ont.
Holland, G. A., & Son, Co. Montreal Que.

FISH is a cheap and most nutritive food owing to the proportion of nitrogeneous matter it contains and therefore fishing is pursued more or less in all parts of the world, more particularly in temperate and colder climates, where the fish are of better flavor and can be preserved to better advantage. The cold waters of Canada and Northern Europe are accordingly the finest fishing grounds of the world. From these waters herring, haddock, mackerel, salmon and cod are the most common fishes. Soles are caught off the English Coast. Sardines and anchovies come from the Mediterranean. In Canada and United States, sardines are also taken and packed in large quantities. Japan has fisheries of considerable value, but most of the catches are used for food among the native tribes. Besides food fish, the sea yields large quantities of other commercial products such as the pearl oyster in Australasia. Coral for ornamental purposes are taken from the waters around Italy and Southern Japan. Sponges are also a sea product. Other products are sealskins, whalebone and fish oils, particularly whale-oils.

The total annual value of Canada's fisheries amount to about $34,000,000, of which the following is the value of the principal kinds of fish taken in the year 1912-13:—

Salmon	$10,025,523
Lobsters	4,571,014
Cod	4,368,750
Herring	3,350,546
Halibut	2,719,616
Haddock	1,065,536
Whitefish	1,054,925
Smelts	982,800
Trout	709,078
Sardines	668,752
Mackerel	635,293
Pickerel	465,462
Hake and Cusk	400,180
Pike	319,476
Clams and Quahaugs	314,047

Crabs, Cockles, etc.	213,740
Pollock	178,294
Alewives	163,274
Oysters	142,602
Sturgeon	133,109

The total exports of fish from Canada for the year ending March 31st, 1914, was $20,238,241.

FISH, Producers and Merchants in British Columbia.

Alford, G. M., Vancouver.
Atlin Fisheries Ltd., Vancouver and Prince Rupert.
Anglo-British Columbia Packing Co., New Westminster, Victoria, Port Essington, Port Nelson, Rivers Inlet, Steveston, Annieville and Westham Island.
Anna, F., Vancouver.
Anglo-British Packing Co., Ltd.. Knight Inlet, Ladner.
British Columbia Packers' Association, Vancouver, (Head Office). Canneries at New Westminster, Eburne, Ladner, Naas Harbor, Steveston, and Westham Island.
Also includes the following companies:—
  Alert Bay Canning Co., Alert Bay.
  Bella Coola Canning Co., Bella Coola.
  Anglo-American Canning Co., Canoe Pass.
  Brunswick Canning Co., Canoe Pass.
  Brunswick Canning Co., River's Inlet.
  Dinsmore Cannery, Eburne.
  Low Inlet Packing Co., Low Inlet.
  Skeena Packing Co., Port Essington.
  Wadham's Cannery, River's Inlet.
  Imperial Canning Co., Ltd., Steveston.
  Terra Nova Canning Co., Steveston.
British Columbia Canning Co., Ltd., Victoria (Head Office). Canneries at: River's Inlet, Ladner, Oceanic.
Broder, Robb, New Westminster.
Butterfield, Mackie & Co., Ltd., New Westminster, Port Alberni.
Bell-Irving, H. & Co., Ltd., Vancouver.
Blow, A., Vancouver.
Blow and Pearson, Vancouver.
Buchan, P. & Co., Vancouver.
Chilliwack Canning & Packing Co., Ltd., Chilliwack.
Clayoquot Sound Canning Co., Ltd., Clayoquot Sound and Victoria.
Canadian Canning Co., Ltd., Eburne and Steveston (Head Office, London, Eng.)
Cassiar Packing Co., Ltd., Port Essington and Vancouver.
Canadian Fish and Cold Storage Co., Ltd., Prince Rupert and Vancouver.
Canadian North Pacific Fisheries, Ltd., Victoria and Vancouver.
Crown Fish Market, Vancouver.
Deep Sea Supply, Vancouver.
Dametry, Seelis & Co., Vancouver.
Dennett & Wheatley, Vancouver.
DesBrisay, M. & Co., Vancouver.
Drane Fisheries, Ltd., Vancouver, Nama Harbor and Kinsqvit.
East Bella Bella Canning Co., Ltd., Vancouver.
English Fisheries, Ltd., Vancouver.
Farrell Tregent & Co., Vancouver.
Fleming, M. Milner.
Glen Rose Canning Co., Ltd., New Westminster.
Grand Forks Canning Co., Ltd., Grand Forks.
Goose-Millard Packing Co., Ltd., Vancouver and Steveston.
Great West Packing Co., Limited, Vancouver, and Steveston.
International Fisheries, Ltd., Vancouver.
Jervis Inlet Canning Co., Ltd., Steveston.
Kildala Packing Co., Ltd., Vancouver—operates the following canneries:—Carlisle Cannery, Claxton, Harlock Island Cannery, Steveston, Kaloda Cannery, River's Inlet.
London Fish Market, Vancouver.
Monk, M. & Co., New Westminster.
North East Fish Co., Vancouver.
Northern Canning Co., Vancouver.
Port Nelson Cannery, Naas Harbor.
Percival & Windsor, Steveston.
Quathiaski Canning Co., Ltd., Quathiaski, Cove.
Royal Fish Co., Vancouver.
Royal Packing Co., Ltd., Vancouver.
St. Mungo Canning Co., Ltd., New Westminster.
Scottish Canadian Canning Co., Ltd., Steveston.
Seelis, Peter, Vancouver.
Simpson, E. H., Vancouver.
Skeena River Fisheries, Vancouver.
Standard Fisheries, Ltd., Vancouver.
Steveston Canning Co., Ltd., Vancouver.
Todd, J. H. & Son, Victoria—operates the following canneries:
  Empire Canning Co., Victoria.
  Richmond Canning Co., Steveston.
  Inverness Canning Co., Inverness.
  Beaver Canning Co., River's Inlet.
Vancouver Cannery, Ltd., Vancouver.
Victoria Fishing Co., Ltd., Victoria.
Wallace Fisheries, Ltd., Vancouver, operates cannery, Smith's Inlet, Alberni, Claxton.
Wilson, James, North Vancouver.
Western Canneries Ltd., Penticton. (Also a cannery at Kelowna.)
Winter Harbor Canning Co., Quatsino.
Wallace, R. S., Vancouver.
Watson Bros., Vancouver.
West Coast Fisheries, Victoria.
Walhackin Anglesey Canneries, Ltd., Walhackin.
White Harbor Canning Co., White Harbor.
Wallace, Jno., Work Island.
York, L. C., Steveston.

FISH, Producer and Merchants.—Nova Scotia.

Abbott Bros., Margarie Harbor.
Anderson, W. H., Parker's Cove. (Lobsters and dry fish.)
Adams & Knickle, Lunenburg. (Dry fish.)
Atkinson, H. H., Stony Island.
Andrews, F. S. & Co., Whitehead.
Amiro, C. & J., West Pubnico. (Dry, pickled and salted.)
Bates, A. L., Louisburg.
Bill, H. R. L., Lockport, N.S. (Fresh, boneless, smoked, pickled, dry and salted.)
Boutilier's Fish Market, Halifax.
Burke, S. S., Ingonish.
Boutilier, A. E., Boutilier's Point.
Black, J. O., Northport.
Boutilier, A. & Co., Centreville.
Baxter, H. C. & Bro., Judique.
Boyd, A. J., Cannes.
Barkhouse, R. A., Chester.
Barnes, J. H., Halifax.
Burke, A. J. & Co., Halifax. (Pickled.)
Barnes, Wm., Halifax.
Bissett, F. W. & Co., Halifax.
Butcher, F. M., Halifax.
Cohn, Bros., Clarke's Harbor.
Cooper, T. H., Dartmouth.
Carter, F. J., Owl's Head Harbor.
Cox, J. A., Shelburne. (dry and pickled.)
Canadian Atlantic Canning Co., Ltd., Lockport.
Crocker, J. A., Freeport.
Cape Farchu Packing Co., Yarmouth.
Crowell, E. P., & Co., Upper Port La Tour. (Boneless, dry, salted and pickled.)
Crowell, G. A., Baccaro, N.S. (Boneless, dry, salted and pickled.)
Christian, M. R., Prospect.
Chase, B., Rockle.
Doucett, B., Maillette.
Dominion Fisheries, Ltd., Halifax. (Boneless, dried, salted, pickled, frozen and shredded.)
Dauphinee, Isaac & Co., Tantallon.
Daley, J. W., Clark's Harbor. (Boneless.)
Ernest, John & Son, Mahone Bay.
Eastern Canada Fisheries, Pictou. (Lobsters.)
Finlayson, A., Grand River.
Fraser, J. A., Glenholme.
Fiset, C. & L., Eastern Harbor.
Forhan, H. L., Eastern Harbor. (Also at Cap Rouge.)
Gateway Fish Co., Ltd., Yarmouth. (Fresh, dry and shredded fish.)
Gorham Bros., Wood Harbor. (Boneless and smoked.)
Giffish, E. R. & Sons, Goldboro.
Hart, E. F. & Co. (The), Halifax.

Hendsbee, R. & Co., Half Island Cove. (Fresh, dry, and pickled fish.)
Hains, R., Freeport.
Hainer, Chas., Freeport.
Hooper, A. B., Fourchu.
Hipson, Jno., Shelburne. (Fresh fish).
Ivey, Jos. & Son, North Sydney.
Job, Bros. & Co., Ltd., Halifax.
Jean, J. & W., Arichat.
Kaiser, J. A., Halifax. (Fresh fish, finnan haddies, fillets, kippered herrings, boneless cod.)
Knickle & Rodenheiser, Lunenburg. (Dry fish.)
Leslie & Lesviconte, Halifax. (Boneless and skin nape cod.)
Le Lacheur, C. P., West Arichat.
Liverpool Fish Co., Ltd., Liverpool.
Lockport Cold Storage Co., Ltd., Lockport, N.S. (Fresh, boneless, smoked, dry, salted and pickled.)
Le Vesconte, Wm. I., River Bourgeois.
La Tour, Fish Company, Smithville, N.S. (Boneless, dry, salted and pickled.)
Le Vesconte, Wm. & Sons, Denver.
McDonald & Co., Port Hood Mines.
Mathews & Scott, Queensport. (Also at East Harbor). (Fresh, dry and pickled fish.)
Maritime Packers, Ltd., River John.
McMillan, Wm., Lockeport. (Fresh and dry fish.)
Munroe, M. M., Bridgewater.
Madden Bros., Baccaro, N.S. (Boneless, dry, salted and pickled.)
Mason, J. & Co., Eastern Points.
Macleod Bros., Neil's Harbor. (Also at New Haven.)
Moulton, T. & W. Co., Ltd., North Sydney.
Morrison, John G., English Town.
McLeod, J. E. Ingonish.
Mickerson, M. A., Clarke's Harbor. (Canned halibut, mackerel, finnan haddies.)
North Atlantic Fisheries, Port Hawkesbury.
Nickerson, F. T., Clarke's Harbor. (Fresh fish, boneless cod, and canned halibut.)
Nova Scotia Fish Co., Ltd., Digby. (Fresh, smoked, dry and pickled.)
O'Toole, Sons, Ltd., Louisburg.
O'Leary & Lee, Yarmouth. (Also at Halifax.)
O'Brien, Joseph, Dingwall. (Fresh, dry, pickled.)
Purney, John, Sandy Point.
Perry & Saunders, Port Maitland.
Portland Packing Co., Canso.
Robin, Jones & Whitman, Halifax. (Dry, salt, pickled, shredded fish.)
Rood, J. Foster Co., Ltd., Halifax.
Robertson, F. A., Port Mouton. (Boneless, dry and nape cod.)
Roberts, Simpson & Co., Liverpool. (Also at Halifax, Fouchu and l'Arche.)
Reid, W. W., Glace Bay.
Snow, J. E., Digby. (Fresh, dry, pickled, smoked fish.)
Sproule, D. & Co., Digby. (Smoked, fresh, pickled and dry.)
Smith, J., Port Hood.
Silver, H. R., Ltd., Halifax.
Scotia Fisheries, Ltd., Medway. (Also at Lingan, Gabarouse, Owl's Head, Halifax.)
Spinney, J. C., Liverpool.
Swim Bros., Lockeport. (Fresh, boneless, dry, salted and pickled.)
Severance, Henry, Fouchu.
Sullivan, F. & Co., Wallace Bridge.
Smith, W. C. & Co., Ltd., Lunenburg. (Dry salt fish.)
Snow, J. W., Thornes Cove.
Simmons, W. T., Halifax.
Smith, N. & M., Ltd., Halifax.
Smith, E. V. & Co., Port La Tour. (Boneless, dry, salted and pickled.)
Stewart & Kolp, Point Mouton. (Dry, salted and pickled.)
Smith, Leslie, East Baccaro. (Boneless, dry, salted and pickled.)
Smith, Wm. & Co., Ltd., Halifax.
Sullivan, A. M. Halifax.
Swales & Kaizer, Halifax.
Thompson, Jas. T., Halifax.
Thistle Canning Co., Crosses Coques. (Also at A. P. Tippett, Montreal.)
Thorburn, J. H., Sandy Point.
Townsend, Z. W. & Sons, Louisburg.
Watson, Jas., Halifax.
Wener, M. J., Halifax.
Whitman, A. N., Halifax.
Wilson, A. & Son, Halifax.
Wells, J. & S., Whitehead.
Whale Cove Trading Co., Whale Cove.
Walker, Jas. & Sons, Walkerville.
White, J. M., Amherst.
Yarmouth Trading Co., Ltd., Yarmouth.
Zwicker & Co., Lunenburg.

FISH, Producers and Merchants of New Brunswick.

Anderson, J. W. & J., Burnt Church.
Brown, Henry, Hampton.
Belts, John, Millerton.
Connors Bros., Ltd., Block's Harbor. (Canned herring and sardines.)
Crocker, T. W., Newcastle.
Calder, James A., Campo Bello.
Clarke, J. Sutton Co., Ltd., L'Etang and St. George.
Deer Island Canning Co., Ltd., Deer Island..
Des Brisay, S., Petit Rocher.
Eastern Canning Co., L'Etang.
Evans, Thos., St. John.
Forbes, W. E., Richibucto.
Galliver, Edward, Bay du Vin.
Gardiner & Doon, St. Andrews.
Guptill, L. C., Grand Manan.
Guptill, J. L., Jr., Grand Manan.
Gailbraith, Jas. A., St. John.
Gorman, Thos., St. John.
Hackey, J. Bennett, Bathurst.
Hawkins, Jno. N., Beaver Harbor.
Hogg, D. W. Co., New Mills.
Hamilton, Peter, River Carlo.
Ingalls, Irwin, Grand Manan.
Ingersoll, Frank, Grand Manan.
Ingersoll, J. & Son,Grand Manan.
Johnston Mariner, Deadman's Harbor.
Loggie, A. & R., Loggieville—with branches and canneries at: Campbellton, Dalhousie, Dalhousie Junction, Escuminac, Grand Ance, Inkerman, Buctouche, Richubucto, Stoneham, Tracadie.
Loggie, W. S., Co., Ltd., Chatham — with branches and canneries at: Caraquet, Escuminac, Inkerman, Kouchibouguac, Miscou, Light House, New Brandon, Shippigan, Tabusinac, Tracadie, Upper Pockmouche, Wilson's Beach, Pohemouche Junction.
Leonardville Trading Co., Ltd., Deer Island.
Legresley, Alphonse, Grand Ance.
Loimier, Manford, Grand Manan.
Leonard Bros., St. John. (Fresh, frozen, dry, pickled and smoked.)
McLean, Wm. H., Bathurst.
Montgomery, W. C., Dalhousie.
McDonald Packing Co., Deer Island.
McLaughlin Bros., Grand Manan.
McCollun, Jno., North Esk Boom.
McCormack & Gatman, St. John.
Malcolm, Andrew, St. John.
Mawhinney, W. G., Upper Charlo.
Northrup & Co., St. John.
O'Leary, Richard, Richubucto and Shippigan. (Lobsters.)
Patterson, James, St. John.
Qwinn, J. P., St. John.
Robertson, H. P., St. John.
Robin, Jones & Whitman, Caraquet and Shippigan.
Russell, H. M. L., Loggieille.
Sewell, John, Burnt Church.
Stevens, Isaac, Campbellton.
Savage, E., Campo Bello.
Snowball, J. B. & Co., Chatham.
Sewell, J. B. & J., Lower Caraquet.
St. John Mercantile Co., Ltd., St. John.
Sealy, John, St. John.
Smith, P. A., St. John.
Smith's Fish Market. Ltd., St. John.
Smith, Richard M., St. Tephem.
Truner, J. D., St. John.
Williston, Thos. B., Bay du Vin.
Wilchpool Market, Campo Bello.
Watt, Lorenzo, Grand Manan.
Wooster, J. W., Grand Manan.
Windsor, Geo., Island River.
Wilson, A. H., St. John.
Young, F. T. B., Caraquet.

FISH, Producers and Merchants of Ontario.

Maloney, John, Port Arthur.
Bowman, J. & Son., Port Arthur.
Dominion Fish Co., Port Arthur.
Thomas & Downing, Port Bruce.
Davis, Harvey, Port Burwell.
Ford & Moulton, Port Burwell.
Foster Bros., Port Burwell.
Misener & Tedford, Port Burwell.
Stephens, Geo., Port Burwell.
Van Order & Davis, Port Burwell.
Williams, Carl, Port Burwell.
Port Dover Fish Co'y, Port Dover.
Lowe, T. H., Port Dover.
McKee & McKeown, Port Maitland.
Martin, Edwin, Port Maitland.
Moss, E. W., Port Maitland.
Mossip & Gorell, Port Maitland.
Ross, Frank, Port Maitland.
Balick, Samuel, Port Robinson.
Brown, Derwood L., Port Rowan.
Berry, William, Port Stanley.
Brown, A. C., Port Stanley.
McDonald & Graham, Port Stanley.
Moore, J. R., Port Stanley.
Taylor, Harley, Port Stanley.
Vary, McIver, Port Stanley.
Producers Fish Co., Port Stanley.
Willan & Co., Port Stanley.

FISH, Producers and Merchants of Prince Edward Island.

Cox, R. N., Morell, P.E.I.
Delaney, J., French, French River.
McLeod, J. H., French River.
Orr, Wm., Kensington.
Pigeon, W. A., Kensington.
Gallant, J., Rusticoville.
Myrick, J. H. & Co., Tignish.
Portland Packing Co., Charlottetown, P.E.I.

FISH, Producers and Merchants of Quebec.

Maritime Fish Corporation, Ltd., Montreal.
Eastern Canada Fisheries, Ltd., Montreal.
Leonard, Bros., Montreal.

FISH, Producers and Merchants in Newfoundland.

Ashbourne, W., Twillingote.
Ayre & Sons, Ltd., St. John's.
Baine, Johnston & Co., St. John's.
Baird, James, Ltd., St. John's.
Barr, Geo. M., St. John's.
Bishop, Sons & Co., St. John's.
Bowring Bros., Ltd., St. John's.
Bishop, Edward, Westleyville.
Basha, T. & Son, Benoit's Cove.
Bartlett, G. A. & Co., Burin.
Bishop, C. F. & Co., Burin.
Batstone, H., English Harbor.
Burry, Baxter, Glovertown.
Buffett, G. A., Grand Bank.
Barbour, A., Newtown.
Barbour, E. & S., Newtown.
Bulley, E. E., Pass Island.
Boyd & Simms, St. Anthony.
Burke, D. J. & T., St. Jacques.
Carter, Geo. J., St. John's.
Clement, Henry, St. John's.
Caron, Jas., Harbor Grace.
Dowe, Louis, Bay Roberts.
Dowe, C. & A., Carbonear.
Duff, Wm. & Sons, Carbonear.
Earle, Sons & Co., Fogo.
Fern, G. C. & Co., St. John's.
Farrell, T. & Sons, St. Lawrence.
Foote, J. B. Grand Trunk.
Goodridge, Alan & Sons, Ltd., St. John's.
Gorton-Pew Fisheries Co., Woods Island.
Goddard, Gabriel & Son, Epworth.
Genge, Isaac, Flower's Cove.
Giovannini, G. J., St. Lawrence.
Giovannini, A. A., St. Lawrence.
Garland, Thomas, Gaultis.
Grant, Michael, Lawn.
Hodge, John W., Fogo.
Hiscock, J. W., Brigus.
Hawco, Jas., Chapel's Cove.
Harris, Samuel, Grand Bank.
Hudson, A. G., Lower Island Cove.
Hardigan Bros., Rencontre.
Job Bros. & Co., Ltd., St. John's.
Jerett, C. A., Brigus.
Jerett, F. G., Brigus.
Jensen, Isaac, Harbor Breton.
Knight, Jas. R., St. John's.
Kennedy, Edward, Aquaforte.
Keating, Jas. W., Channel.
Kennedy & St. John, Conception Harbor.
Le Seelleur, Thos., La Poile.
McDougall, Alex., St. John's.
Moulton, Thos., Burgeo.
Moulton, R., Ltd., Burgeo.
Maddock, J. & J., Carbonear.
McGinn, Thos. W., Change Island.
Manvel, Josiah, Exploits Harbor.
Moore, W. & J., Freshwater.
McRae, R. D., & Sons, Harbor Grace.
Munn & Co., Harbor Grace.
Martin, Wm., New Perlican.
March, Joseph, Old Perlican.
Moore, J. & F., St. Anthony.
Newfoundland Produce Co., Ltd., St. John's.
Newfoundland Fresh Fish Packing Co., Ltd., St. John's.
Nash, Jude, McAllum Harbor.
Orr-Newfoundland Co., Ltd., Burnt Island.
Parsons, John, Bay Roberts.
Pike & Bradley, St. Lawrence.
Pettipas, John, Summerside.
Penny, E. & Sons, Carbonear.
Patten & Forsey, Grand Bank.
Parsons, Moses, New Harbor.
Penny, John & Sons, Rameau.
Ryan, Jas., Bonavista.
Ryan, Bros., Trinity.
Rorke, John, & Sons, Carbonear.
Rose, J. J., Harbor Breton.
Rose, John, Jersey Harbor.
Silver, H. R., Ltd., St. John's.
Smith, Co., Ltd., St. John's.
Swyers, Joseph T., Bonavista.
Smith, Jno. G., Brigus.
Samway & Matthews, Burgeo.
Soper, W. H., Carbonear.
Smith, A., Cupids.
Strong, J. A. & Co., Little Bay Islands.
Strong & Murcell, Little Bay Islands.
Skinner, Edward, Richard's Harbor.
Taylor, C. F., St. John's.
Templeman, Philip, St. John's.
Tessier & Co., St. John's.
Turner, Thos., Happy Adventure.
Udell, Jos. & Sons, Carbonear.
Vigus, James, Burin.
Vigus, Robert, Burin.
Whitten, Wm., Wittess Bay.
Winsor, Henry C. Aquaforte.
Wakeley, Thos., Haystack, Long Island.
Young, S. J. & Bros., St. Jacques.

FISH, Lobster Packers, in Nova Scotia.

Atkins, G. W. & Co., Little Harbor.
Ancoin, F., Little River.
Amiro, C. & J., West Pubnico. (Canned.)
Banks, H. H., Pleasant Bay.
Balcom, H. J., Port Dufferin.
Burgess, H. S. W., Port Mouton.
Balcom & Chisholm, Gulf Shore.
Balcom & Co., Gulf Shore.
Baxter, H. C. & Br., Lingan.
Burnham & Morrill, Liscomb and Mair a Dieu.
Caraland, A. E., Pubnico Head.
Comeau, L. H., Meteghan.
Canadian Atlantic Canning Co., Ltd., Lockport, N.S.
Cape Sable Packing Co., Ltd., Clarke's Harbor, (Canned.)
Dawson, W. F., Margaree Harbor.
Dominion Fisheries, Ltd., Halifax. (Canned.)
Ellis, J. A. & Son, Mavillette.
Goreham Bros., Lower Wood Harbor. (Canned.)
Leslie Packing Co., Port Mouton.
Lawrence, W. S., Margaree Harbor.
Loggie, A. & R., Margaree Harbor. (Also at Mulgrave.)
Logan & Murdock, Pictou.
Magee, Fred., Ltd., Pictou.
Mud Island Lobster Co., Yarmouth.
McInnis, A., Wallace Bridge.
McInnis, John, Wallace Bridge.
McKenzie, Archibald, River John.
McKenzie, James, River John.

McLennan & Redmond, River John.
Mahoney, F. A., Larry's River.
Mood, F., Lower Wood Harbor.
Mood, L., Lower Wood Harbor.
Nickerson, F. T. & Co., Clarke's Harbor. (Live and canned.)
Nickerson, H., Lower Wood Harbor.
Nickerson, M. A., Clarke's Harbor. (Canned.)
Nickerson, Smith & Co., Yarmouth.
Nickerson, C. C., Wood's Harbor. (Canned.)
Neville Canneries, Ltd., Port Mouton.
Rood, J. G. & Co., Judique.
Rood, J. Foster (The) Co., Ltd., Mabou.
Strand, G. S., West Pubnico. (Canned.)
Smiler & Co., Port Dufferin.
Stickland, J., Neil's Harbor.
Stewart & Kolp, Port Mouton. (Live and canned.)
Smith, H. W. & S., Ltd., Wallace.
Theriault & Moses, Meteghan.
Trask, W. S., Little River.
Union Fish Co. No. 2, Ltd., Little Harbor.
Van Horne Packing Co., Ltd., Yarmouth.
Wickers, Chas., Lower Shog. Harbor.

Abriel, J. D., Broad Cove.
Cerretto, B., Cape Augnet.
Chester Packing Co., Chester.
Le Brun, Geo., Eastern Harbor.
Loggie, A. & R., Cook's Cove.
McLeod, D. B., Breton Cove.
Myrs, Jno. C., Brule Shore.
Mauger, C. E., Cape La Ronde.
Nickerson, F. T. & Co., Clarke's Harbor.
Rood, J. G. & Co., Brunswick.
Rood, Jno., Foster Co., Ltd., Broad Cove.
Swim, Oscar, Clarke's Harbor.
Thistle Canning Co., Belliveau Cove. (A. P. Tippett, Montreal.)
Veinat, Chas. O., Bear Point.
Williams, Thos., Dingwall.

FISH, Lobster Packers in New Brunswick.

Allen, Harper, Bayfield.
Allen, Wilbur J., Chapman.
Bilodeau, Michael, Cocogne.
Cormier, F. L., Cape Bald.
Cormier, N. L., Cape Bald.
Comeau, C. L., Miscou Harbor.
Doucet, Frank, Lower Caraquet.
Gogain, Luke T., Cocogne.
Gauthier, Louis, Miscou Harbor.
Loggie, W. S. Co., Ltd., Chatham.
Loggie, A. & R., Loggieville.
Landry, P. M., Dupey's Corner.
LeBlanc, G., Dupey's Corner.
LeBlanc & Landry, Dupey's Corner.
Legere, F. L., Lower Caraquet.
Magee, Fred, ort Elgin.
McGregor, Simon, Dalhousie.
Melanson, B. P., Shediac.
O'Leary & Lee, Richibucto.
Paturel, E., Ltd., Shediac.
Robichaud, Marcel, Shippigan.
Smyth & Williston, Escuminac.
Savoy, Jas. G., Lower Neguac.
Savoie, Wm. B., Shippigan Island.
Winsor, J. W., Wilson's Beach.
Young, F. T. B., Miscou Light House.

FISH, Lobster Packers in Prince Edward Island.

Agnew, John, Alberton.
Clarke Bros., Alberton.
McNeil, M. A., Alberton.
McFarlane, E., Annandale.
Wright, I., Campbellton.
Schaefer, F., Carleton, Lot 28.
Longworth, H. W., Charlottetown.
Longworth, G. D. & Co., Charlottetown.
Roberts, Simpson & Co., Charlottetown.
Gaudet, C., Edmont Bay.
Sharp Bros., Ellerslie Station.
Cox, R. N., Morell Station.
Feehan, Bros., Mount Stewart.
Prowse & Sons, Murray Harbor.
Clow, Benjamin, Murray Harbor North.
Candon & Clow, Murray Harbor North.
Pinea, S., North Rustico.
Cousins, J. S., Park Corner.
Penny, S. V., Pinette.
Judson, J. H., Pownall.
Rattray, J. H., St. Peter's Bay.
Adams, Wm., Seaven Lot 20.
McKay, J. T., Seaven Lot 20.
Sterns Bros., Ltd., Souris.
Zallant, P. C., Summerside.

FISH, Oysters, Producers and Shippers in Prince Edward Island.

McQuillan, Jno., Charlottetown.
Morrison, J. A., Conway Station.
Noonan, J. M., Summerside.
Sharp, J. A., Summerside.

OYSTERS, N.B.

Barnes, James, Buctouche.
Leonard Bros., St. John.
Turner, J. T., St. John.

FISH, Clam Packers in New Brunswick.

Hanson Bros., Lepreau.
Brown Bros., Little Lepreau.

CLAMS.

Whitman Fish Co., Annapolis, N.S.

FISH OIL.

Lockport Cold Storage Co., Ltd., Lockport, N.S.
Burke, A. J. & Co., Halifax, N.S.
Maritime Fish Corpn., Digby and Canso, N.S.
Truing, Wm. & Co., Lameque, N.B.

FISH GLUE.

Robinson (The) Glue Co., Ltd., Canso, N.S.

FITCH. (See POLECAT.)

FITTINGS, Automobile and Boat, Brass and Nickel.

Chadwick Brass Co., Ltd., The, Hamilton, Ont.
Kinzinger, Bruce & Co., Ltd., Niagara Falls, Ont.
Robertson, The James Co., Ltd., Toronto, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Tallman Brass & Metal Co., Hamilton, Ont.
United Brass & Lead, Ltd., Toronto, Ont.
Westport Mfg. & Plating Co., Ltd., The, Westport, Ont.

FITTINGS, Bar.

Blonde Lumber & Mfg. Co., Ltd., Chatham, Ont.
Brunswick-Balke-Collender Co. of Canada, Ltd., Toronto, Ont.
Hamilton Brass Mfg. Co., Ltd., Hamilton, Ont.
Hanbury Mfg. Co., Ltd., Brandon, Man.
Murray G., W., Co., Ltd., Winnipeg, Man.
Ottawa Stair Works, Ottawa, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Piggott, John & Sons, Chatham, Ont.
Winnipeg Cabinet Factory, Ltd., Winnipeg, Man.
Winnipeg Paint & Glass Co., Ltd., Winnipeg, Man.
Woodcrafts, Ltd., Calgary, Alta.

FITTINGS, Bathroom.

Canadian Wolverine Co., Ltd., Chatham, Ont.
Garth Company, The, Montreal, Que.
Gendron Mfg. Co., Ltd., Toronto, Ont.
Good Mfg. Co., Ltd., The, Niagara Falls, Ont.
Kinzinger, Bruce & Co., Ltd., Niagara Falls, Ont.
Mitchell, The Robt. Co. Ltd. Montreal Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Pollock Mfg. Co., Ltd., Berlin, Ont.
Robertson, The James Co., Ltd., Toronto, Ont.
Toronto Brass Mfg. Co., Toronto, Ont.
Westport Mfg. & Plating Co., Ltd., The, Westport, Ont.

FITTINGS Metal (Bank, Store and Office.)

Alberta Ornamental Iron Co., Ltd., Redcliff, Alta.
British Columbia Wire Fence Co., Vancouver, B.C.

Canadian Ornamental Iron Co., Toronto, Ont.
Clatworthy & Son, Toronto, Ont.
Cummings Brass, Iron & Wire Co., Ltd., Winnipeg, Man.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Estey Bros. Co., Montreal.
Garth Company, The, Montreal, Que.
Hamilton Brass Mfg. Co., Ltd., Hamilton, Ont.
Hutchison & Sticht, Montreal, Que.
Kyle's Cabinet Works, Ltd., Ottawa, Ont.
Meadows Geo. B. Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Partridge, J., & Sons, Kingston, Ont.
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
Schmidt & Company, Winnipeg, Man.
Steel Equipment Co., Ltd., Ottawa, Ont.
Steel Furnishing Co., The. New Glasgow, N.S.
Toronto Brass Mfg. Co., Toronto, Ont.
Westminster Iron Works, New Westminster, B.C.
Winnipeg Wire & Steel Works, Winnipeg, Man.

FITTINGS, Pipe.

Electrical Fittings Co., Ltd., Toronto, Ont.
Fiddes & Hogarth, Ltd., Toronto, Ont.
Fittings, Ltd., Oshawa, Ont.
General Fire Extinguisher Co. Montreal, Que.
Lafrance Improved Pipe Joints Co., Ltd., Montreal, Que.
McAvity, G., & Sons, Ltd., St. John, N.B.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Terminal City Iron Works, Vancouver, B.C .

FITTINGS, Railway Car, Etc. ..(See also Trimmings, Railway Car.)

Estey Bros. Co., Montreal.
Mitchell, The Robt. Co. Ltd. Montreal Que.
Western Car & Equipment Co., Ltd., Winnipeg, Man.

FITTINGS, Soil Pipe.

Anthes Foundry, Ltd., Toronto, Ont.
Forwell Foundry, Ltd., Berlin, Ont.
Lunenburg Foundry Co., The, Lunenburg, N.S.
Toronto Hardware Mfg. Co., The, Toronto, Ont.
Vancouver Pipe & Foundry Co., Ltd., Vancouver, B.C.
Warden King Ltd., Montreal, Que.

FLAGS.

Bromley & Hague, Ltd., Winnipeg, Man.
Copp, Clark Co., Ltd., The, Toronto, Ont.
Edmonton Tent and Mattress Co. Ltd., Edmonton, Alta.
Finnie & Murray, Winnipeg, Man.
Hand, T. W., Firework Co., Ltd., Hamilton, Ont.
Hopkins Mfg. Co., Ltd., Toronto, Ont.
May J. & Co., Winnipeg, Man.
MacKenzie Mfg. Co., Ltd., Ottawa, Ont.
Merchants Awning Co., Ltd., The, Montreal,
Mortimore & Blackeby, Toronto, Ont.
Leckie, John, Ltd., Toronto, Ont.
Pike, The D., Co., Ltd., Toronto Ont.
Smart-Woods Ltd. Ottawa, Ont.
Sonne, Thos., Sr. Montreal, Que.
Soper, Robt., Hamilton, Ont.
Turner, J. J. & Sons, Peterborough, Ont.

FLANNEL, a kind of woollen fabric composed of carded fibres lightly fulled. Ordinary flannel is woven of loosely spun yarn. **(See WOOL.)**

FLANNELS.

Baruston Woollen Co., The, Way's Mills, Que.
Bird Woollen Mill Co., Ltd., Bracebridge, Ont.
Black, J. & G., Thurso, Que.
Blakeney Woollen Co., Ltd., The, Blakeney, Ont.
Cantin La Cie. et Fils ,Warwick, Que.
Coaticook Woollen Mill Co., Coaticook, Que.
Dontigny, Philip, Arnprior, Ont.
Humphrey, J. A., & Son, Ltd., Moncton N.B.
Lott William, Belleville, Ont.
Magog Woollen Mills, Ltd. Sherbrooke Que.
Midnapore Woollen Mills, Ltd,. Midnapore, Alta.
O'Hare & Sons, Midland, Ont.
Paris Wincey Mills Co., Ltd., The, Paris, Ont.
Penman's, Ltd., Paris Ont.
Thoburn, Wm. Almonte Ont.
Trent Valley Woolen Mfg. Co., Ltd., The, Campbellford, Ont.
Upton The G.,, Co., Alliston Ont.

FLANNELETTES Plain and Printed.

Canadian Cottons, Ltd., Montreal, Que.
Dominion Textile Co., Ltd., Montreal, Que.

FLATWARE, Plated.

McGlashan, Clarke Co., Ltd., Niagara Falls, Ont.
Meriden Britannia Co., Hamilton, Ont.
Roden Bros., Ltd., Toronto Ont „
Rogers, The Wm., Mfg. Co. Ltd., Niagara Falls, Ont.
Standard Silver Co. of Toronto Ltd., The, Toronto Ont,.
Toronto Silver Plate Co., Ltd., The, Toronto.

FLATWARE, Sterling Silver.

Birks, Henry & Sons, Ltd.. Montreal, Que.
Ellis, P. W., & Co., Ltd., Toronto, Ont.
Meriden Britannia Co., Hamilton, Ont.
Toronto Silver Plate Co., Ltd., The, Toronto.

FLAXBOARD.

Canadian Flax Mills Ltd., Guelph, Ont.

FLAX FIBRE AND TOW.

Blyth Flax Co., Ltd., Blyth, Ont.
Canada Fibre & Cordage Co., Montreal, Que.
Canadian Flax Mills Ltd., Guelph, Ont.
Dickson, M. R., & Co., Wallaceburg, Ont.
Ebel, H. W., Conestoga, Ont.
Forrester, William, Mitchell, Ont.
Kellerman, Geo., Dashwood, Ont.
Standard Flax Co., Ltd., Ailsa Craig, Ont.
Stock, Valentine, Tavistock, Ont.
Wuerth, Haist & Co., Crediton, Ont.

FLAX AND FLAX MEAL.

Alberta Milling Co., Ltd., The, Edmonton, Alta.
Dickson, M. R., & Co., Wallaceburg, Ont.
Forrester, William, Mitchell, Ont.
Geiger, Owen, Hensall, Ont.
Kellerman, Geo., Dashwood, Ont.
Stock, Valentine, Tavistock, Ont.
Western Milling Co., Ltd., The, Calgary, Alta.
Wuerth, Haist & Co., Crediton, Ont.

FLAVINE, a dyeing preparation made from quercitron bark.

FLAX belongs to the natural order Linaceæ and has long been under cultivation. The plant is an annual with an erect stalk rising to a height of from 20 to 40 ins. with alternate narrowly lance-shaped leaves, branching at the top, each branch ending in a bright blue colour. It is cultivated both for seed, from which linseed and linseed oil are manufactured, and for the fibre. When cultivated primarily for fibre the crop is pulled before the seed is quite ripe when the stalks of the plant have become yellow throughout, about two-thirds their height. The various operations through which the crop passes from this point till flax is ready for market are, pulling, rippling, retting, drying, rolling and scutching. The flax is pulled up by the root and the balls or capsules removed by the process of rippling, done in the field with a comb-like device, whereby the seeds and the stalk are separated. The retting operation follows, wherein the stalks are ratted either by the process of water-retting or dew-retting. In the former the straw is submerged in specially prepared ponds containing water of a special degree of purity and temperature where it is left until the fibre readily separates from the woody core. It is then dried and prepared for scutching. The latter method is to spread the straw in the ground immediately it is pulled, allowing the separation of the fibre to be brought about by natural means. This method, however, yields a much inferior fibre to the water method, although a large quantity of the Russian flax is retted in this manner. The scutching operation is the removing of the fibre from the woody core and preparing it for market, being subsequently made into linen yarns and goods, thread, twines, cordage and ropes.

Flax for fibre is produced chiefly in Russia, Belgium, Austria-Hungary, Germany, Italy, France, Ireland and Holland, where different methods of preparation produce varying qualities of fibre, that produced in Belgium and Ireland being of best quality. The Canadian production for fibre is comparatively small but the possibilities are great owing to the enormous crop of flax each year in the West which to-day is only commercially valuable for seed. The Canadian production of flaxseed in 1912 amounted to 26,130,000 bus., in 1913 to 17,539,000 bus., in 1914 to 7,175,200 bus. The only flax produced for fibre in Canada is in Western Ontario, where a rather inferior fibre is produced suitable for manufacture into twines and cordage. A good quality fibre can be produced, but as yet the labor expense is too great to warrant proper attention in the preliminary operations. The imports of flax fibre and tow into Canada during the fiscal year ending March 31, 1914, amounted to 5,627 pounds, valued at $32,798, while during the same period the imports of flaxseed oil amounted to 293,512 pounds, valued at $21,075, and of flaxseed to 1,277 bushels, valued at $2,906. During the same period the imports of linen goods were valued at $2,952,301.

The world's total production of flaxseed in 1914 amounted to 108,380,000 bus., distributed as follows: Argentina, 48,000,000 bus.; Russia, 22,000,000 bus.; United States, 15,559,000 bus.; India, 15,288,000, and Canada, 7,175,000 bus. The exports from Canada during the fiscal year ending March 31, 1914, amounted to 20,647,327 bus., valued at $24,816,333, about one-half of which was sent to the United States and some 8,579,713 bus. to the United Kingdom. The acreage under flax for seed in Canada has been reduced during the past two years owing to the low prices ruling for the seed and the fact that less new land is being broken up in the West, for which flax is valuable as a first crop.

FLEECE. (See WOOL.)

FLINT.— Flint is a compact variety of stone usually gray or brown, but often having a variety of colours. It is very hard and strikes fire with steel. It is extensively used in the potteries and also as pebbles or balls for tub mills in the grinding of cement, ores, and other materials.

These pebbles are picked up in the natural state on the shores of Normandy, Denmark, and Iceland. They occur in beds of chalk which is separated by the action of the ocean, and the pebbles washed up on shore. The best come from the coast of Normandy, France. The importation of flint pebbles into Canada in the year ending with the 31st of March, 1914, was 6,572 tons, valued at $60,329.

FLINT.

Dominion Feldspar, Ltd., Toronto, Ont.

FLOATS, Copper.

Good Mfg. Co., Ltd., Niagara Falls, Ont.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

FLOATS, Cork.

Robinson Bros. Cork Co., Ltd., Toronto, Ont.

FLOCK, refuse wool, old cotton husks and other waste used to stuff cheap mattresses.

FLOCK, Upholsterers' & Mattress Makers'.

Bauer, A., & Co., Waterloo, Ont.
Factory Waste & Metal Co. Montreal, Que.
Montreal Blanket Co., Montreal, Que.
Woods Flock Mills, Toronto, Ont.

FLOOR-CLOTH. (See OIL-CLOTH, LINOLEUM.)

FLOORING, Composition.

Canadian Flexotile & Construction, Ltd., Winnipeg, Man.
Canadian Pyrofugant Flooring Co., Ltd., Berlin, Ont.
Good Mfg. Co., Ltd., Niagara Falls, Ont.
Hilton, H., & Sons, Winnipeg, Man.

FLOORING, Cork.

Robinson Bros. Cork Co., Ltd., Toronto, Ont.

FLOORING, Hardwood.

Baldwin, W. K., Baldwin's Mills, Que.
Blonde Lumber & Mfg. Co., Ltd., Chatham, Ont.
Calhoun Lumber Co., Calhoun, N.B.
Canadian Woodtile Co., Ltd., Toronto, Ont.
Canadian Woodworking Co., Ltd., Yarmouth, N.S.
Cummings, A. H., & Son, Ltd., Coaticook, Que.
Haley Bros., & Co., St. John, N.B.
Knight Brothers Co. Ltd., The, Burk's Falls, Ont.
Lea, Paul Co., Ltd., Moncton, N.B.
Ottawa Stair Works, Ottawa, Ont.
Rathbone, George, Ltd., Toronto, Ont.
Seaman, Kent Co., Ltd., The, Meaford, Ont.
Siemon Brothers, Ltd., Wiarton, Ont.

FLOORING Marble and Mosaic.

Canada Glass Mantels & Tiles, Ltd., Toronto,
Dominion Marble Co., Ltd., Montreal, Que.
Douglas-Milligan, Ltd., Montreal, Que.
Hackney Tile & Supply Co., Ltd., Winnipeg, Man.
Hooper's Marble & Granite Co., Ltd., Winnipeg, Man.
Luxfer Prism Co., Ltd., The, Toronto, Ont.
Marriotti Marble Co., Montreal, Que.
Middleton Marble & Granite Co., The, Hamilton, Ont.
Western Marble Mosaic Co., Ltd., Winnipeg, Man.

FLOORING, Matched Wood.

Alberta Lumber Co., Ltd., Vancouver, B.C.
Anglin, S. & Co., Kingston, Ont.
Ball Planing Mill Co., Ltd., The, Barrie, Ont.
Batts, Ltd. West Toronto, Ont.
Benson & Bray, Ltd., Midland, Ont.
Black, Joseph L., & Sons, Ltd., Sackville, N.B.
Boake Mfg. Co. Ltd., Toronto, Ont.
Booth, The W., Lumber Co., Ltd., Toronto, Ont.
Brennan, The M. & Sons, Mfg. Co. Ltd., Hamilton Ont.
Bronson Lumber & Saw Mill Co., Ltd., Ottawa.
Bruce Mines Saw Mill Co., Ltd., Bruce Mines, Ont.
Brunette Saw Mill Co., Ltd., New Westminster, B.C.
Bryan Mfg. Co., Ltd., Collingwood, Ont.
Burrard Lumber Co., Ltd., Vancouver, B.C.
Calhoun Lumber Co., Calhoun, N.B.
Canada Creosoting Co., Ltd., Toronto, Ont.
Canada Wood Specialty Co., Ltd., Orillia, Ont.
Canadian Woodworking Co., Ltd., Yarmouth, N.S.
Chalifour, O., Quebec, Que.
Chappell Bros. & Co., Ltd., Sydney, N.S.
Christie Woodworking Co., Ltd., St. John, N.B.
Cummings, A. H., & Son, Ltd., Coaticook, Que.
Dempster, Estate of, James, Halifax, N.S.
East Kootenay Lumber Co., Ltd., Jaffray, B.C.
Eaton, J. R., & Sons, Ltd., Orillia, Ont.
Eau Claire & Bow River Lumber Co. Calgary, Alta.
Edwards, W. C., & Co., Ltd., Ottawa, Ont.
Empire Lumber Co., Ltd., The, Toronto Ont.
Fort Frances Sash & Door Co., Fort Frances, Ont.
Foster, Clement A., Haileybury, Ont.
Georgian Bay Shook Mills, Ltd., Midland, Ont.
Gignac, J. H., Ltd., Quebec, Que.
Graves, Bigwood & Co. Toronto, Ont.
Gravel, The A., Lumber Co., Ltd., Etchemin Bridge, Que.
Hancock, T. H., Toronto, Ont.
Harrison, John, & Sons, Co., Ltd., Owen Sound, Ont.
Hillsborough Woodworking & Mfg. Co., Ltd., Hillsborough, N.B.
Knight Brothers Co. Ltd., The, Burk's Falls, Ont.
Laidlaw, The R., Lumber Co., Ltd., Toronto,
Lea, Paul Co., Ltd., Moncton, N.B.
Leduc & Fortin, Beauharnois, Que.
Leigh, James & Sons, Victoria, B.C.
McLaren Lumber Co., Ltd., Brockville, Ont.
McLennan Lumber Co., Ltd., Montreal, Que.
Metis Lumber Co., The, Price, Que.
Mickle Dyment Co., Ltd., The, Barrie, Ont.
Moirs, Ltd., Halifax, N.S.
Murray & Gregory, Ltd., St. John, N.B.
Muskoka Wood Mfg. Co., Ltd., Huntsville, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Parry Sound Lumber Co., Ltd., The, Toronto,
Pauze, U., & Fils Co., Montreal, Que.
Pembroke Lumber Co. The, Pembroke, Ont.
Porto Rico Lumber Co., Ltd., Moyie, B.C.
Rathburn Company, The, Deseronto, Ont.
Rhodes, Curry Co., Ltd.. Amherst, N.S.
Rutherford, The, William & Sons, Ltd., Montreal, Que.
St. Maurice Lumber Co., Three Rivers, Que.
Sarassin, Napoleon, et Fils, Ltd., Montreal, Que.
Seaman, Kent Co., Ltd., The, Meaford, Ont.
Snowball, The, J. B. Co., Ltd., Chatham, N.B.
Spanish River Lumber Co., Ltd., Massey, Ont.
Sparwood Lumber Co., Ltd., Sparwood, Ont.
Spencer Bros. & Turner, Ltd., Truro, N.S.
Sprague Lumber Co., Ltd., Winnipeg, Man.
Thompson, The, W. R., Co. Teeswater, Ont.
Tobin Mfg. Co., Bromptonville, Que.
Tremblay, F., & Co. Montreal Que.
Victor Wood Works, Ltd., The, Amherst, N.S.
Villeneuve et Cie., St. Jerome, Que.
Williamson & Crombie, Kingsbury, Que.
Wilson Brothers, Ltd., Collingwood, Ont.
Wise, Henry ,St. Catharines, Ont.

FLOORING, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
Gutta Percha & Rubber, Ltd., Toronto, Ont.
Walpole Rubber Co., Ltd., Montreal, Que.

FLOORING, Ruberoid.

Standard Paint Co. of Canada, Ltd., Montreal.

FLOORING, Steel (Malt, Kiln, and for Cotton and Wool Drying.)

Canada Wire & Iron Goods Co., Hamilton, Ont.
Fairgrieve Metal & Stamping Co., Toronto, Ont.
Meadows Geo. B. Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
Westport Mfg. & Plating Co., Ltd., The, Westport, Ont.
Whitfield, The John, Co., Toronto, Ont.

FLOUR, ground grain, usually taken to mean ground wheat, unless otherwise stated. The United States and Canada are the great producers of flour. The inner part of the grain yields the finest and whitest of the grain yields the finest and whitest flour, though also the least nutritious. The bran, or meal from the husk, is now used for feeding cattle and poultry and for cleaning and brightening goods in dye works. In many countries corn, rye, barley, and other grains are ground and made into bread, and to a smaller extent enter into international commerce. Large quantities of Indian corn are ground in the United States and Canada, largely for fodder, and some meal is exported.

The exports of flour from Canada during the year ending with March 31st, 1914, were:

	Barrels.
Wheat Flour	4,832,183
Oatmeal	111,527
Corn Meal	3,939
Other Meals and Flours	2,042
	Cwt.
Bran and Shorts	2,077,713

FLOUR Buckwheat.

Brown, H., & Sons, Carleton Place, Ont.
H.-O. Company, The, Hamilton, Ont.
Quance Brothers, Delhi, Ont.
White Swan Spices & Cereals, Ltd., Toronto.
Wigle, Colin, & Sons, Amherstburg, Ont.

FLOUR, Corn.

Canada Starch Co., Ltd., The, Brantford. Ont.
Chisholm Milling Co., Ltd., Toronto, Ont.
Empire Flour Mills, Ltd., St. Thomas, Ont.

FLOUR, Gluten.

White Swan Spices & Cereals, Ltd., Toronto.

FLOUR, Graham.

Alberta Milling Co., Ltd., The, Edmonton, Alta.
Western Milling Co., Ltd., The, Calgary, Alta.
White Swan Spices & Cereals, Ltd., Toronto.
Wigle, Colin, & Sons, Amherstburg, Ont.

FLOUR, Oatmeal.

H.-O. Company, The, Hamilton, Ont.

FLOUR, Potato.

Clark, J. Sutton, Ltd., St. George, N.B.
Morell Starch Co., Ltd., Morell, P.E.I
St. Peters Starch Co., Ltd., St. Peters, P.E.I

FLOUR, Rye.

Quance Brothers, Delhi, Ont.

FLOUR, Wheat.

Alberta Milling Co., Ltd., The, Edmonton, Alta.
Atlantic Milling Co., Ltd., Pictou, N.S.
Aurora Flouring Mills, Aurora, Ont.
Barry, E. A., Montreal, Que.
Brown Alexander, Milling & Elevator Co., Ltd., Toronto, Ont.
Campbell Flour Mills Co., Ltd., Peterborough, Ont.
Campbell Flour Mills Co., Ltd., The, Toronto.
Canada Flour Mills Co., Ltd., The, Chatham, Ont.
Canadian Cereal & Flour Mills, Ltd., Toronto.
Cargill, H., & Sons, Cargill, Ont.
Collingwood Milling Co., The, Collingwood, Ont.
Columbia Flouring Mills Co., Ltd., Enderby, B.C.
Copeland, G., & Sons, Penetanguishene, Ont.
Deseronto Milling Co., Ltd., Deseronto, Ont.
Dominion Flour Mills, Ltd., Montreal, Que.
Dominion Millers' Association, The, Toronto.
Dowd Milling Co., Ottawa, Ont.
Dufresne, A. B., St. Cesaire, Que.
Echo Milling Co., Ltd., Gladstone, Man.
Edmonton Milling Co., Ltd., Strathcona, Alta.
Ellison Milling Co., Lethbridge, Alta.
Empire Flour Mills, Ltd., St. Thomas, Ont.
Georgian Bay Milling & Power Co., Ltd., Meaford, Ont.
Glengarry Mills, Ltd., Alexandria, Ont.
Glenora Milling Company, Glenora, Ont.
Hamilton Milling Company, Hamilton, Ont.
H.-O. Company, The, Hamilton, Ont.
Hunt Brothers, Ltd., London, Ont.
Kerr Milling Co., Ltd., Dundas, Ont.
Lake of the Woods Milling Co., Ltd., Montreal.
Leitch Brothers Flour Mills, Ltd., Oak Lake, Man.
Lukes, Samuel, Bradford, Ont.
Lussier, Albert, Varennes, Que.
Maple Leaf Milling Co., Ltd., Brandon, Man.
McCulloch, George, & Sons, Souris, Man.
McDonald & Robb, Valleyfield, Que.
McLean Milling Co., Ltd., Amherst, N.S.
McLeod Milling Co., Ltd., Stratford, Ont.
McKillop, A., & Sons, Ltd., West Lorne, Ont.
Medicine Hat Milling Co., Ltd., Medicine Hat, Alta.
Morden Milling Co., Morden, Man.
Murphy, Eugene, Mount Forest, Ont.
Noble, Estate of Robert, Norval, Ont.
Ogilvie Flour Mills Co., Ltd., Montreal, Que.
Ontario & Manitoba Flour Mills, Ltd., Ottawa, Ont.
Pearce Co., Ltd., The, Marmora, Ont.
Pembroke Milling Co., The, Pembroke, Ont.
Peterborough Cereal Co., Ltd., Peterborough, Ont.
Pfeffer Milling Co., Ltd., Listowel, Ont.
Pincombe, R. M., Strathroy, Ont.
Quaker Oats Company, The, Peterborough, Ont.
Quance Brothers, Delhi, Ont.
Redcliff Mill & Elevator Co., Ltd., Redcliff, Alta.
Regina Flour Mills, Ltd., Regina, Sask.
Renfrew Flour Mills, Ltd., Renfrew, Ont.
Renfrew Milling Co., Ltd., Renfrew, Ont.
Rigaud Milling Company, The, Rigaud, Que.
Robin Hood Mills, Ltd., Calgary , Alta.
Robin Hood Mills, Ltd., Moose Jaw, Sask.
St. John Milling Co., St. John, N.B.
St. Lawrence Flour Mills Co., Ltd., Montreal.
Saskatoon Milling Co., Saskatoon, Sask.
Seaforth Milling Co., Ltd., The, Seaforth, Ont.
Shaw, The Hedley Milling Co., Ltd., Toronto.
Shawville Milling Co., Shawville, Que.
Shirk, Peter, Baden, Ont.
Sylvester, W. C., & Sons, Vankleek Hill, Ont.
Tavistock Milling Co., Ltd., Tavistock, Ont.
Taylor, The T. H. Co., Ltd., Chatham, Ont.
Thompson, The W. R. Co., Teeswater, Ont.
Vick, George & Sons, Orillia, Ont.
Western Canada Flour Mills Co., Ltd., Toronto, Ont., and Winnipeg, Man.
Western Milling Co., Ltd., The, Calgary, Alta.
Wigle, Colin, & Sons, Amherstburg, Ont.
Wood Milling Company, Hamilton, Ont.

FLOUR, Whole Wheat.

Alberta Milling Co., Ltd., The, Edmonton, Alta.
Aurora Flouring Mills, Aurora, Ont.
Brown, H., & Sons Carleton Place Ont.
Collingwood Milling Co., Collingwood, Ont.
McDonald & Robb, Valleyfield, Que.
Western Milling Co., Ltd., The, Calgary, Alta.
White Swan Spices & Cereals, Ltd., Toronto.
Wigle, Colin, & Sons, Amherstburg, Ont.

FLOWERS.—Artificial flowers are especially a Parisian product, though the industry is also making great strides in Germany, especially Saxony.

FLOWER POTS, Fibre.

Eddy, The E. B., Co., Ltd., Hull, Que.

FLOWER POTS AND HANGING BASKETS.

Campbell's, R. Sons, Hamilton, Ont.
Cranston, John & Sons, Hamilton, Ont.
Foley, J. W., & Co. St. John N.B.
Foster Pottery Co., Hamilton, Ont.
Medicine Hat Pottery Co., Ltd., Medicine Hat, Alta.

FLOWERS, Artificial.

Canadian Flower & Feather Mfg. Co., Montreal.
Dominion Flower & Feather Mfg. Co., Montreal.

FLUE LININGS.

Dominion Sewer Pipe Co., Ltd., Swansea, Ont.
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Montreal Concrete Tile, Ltd., Montreal, Que.
Ontario Sewer Pipe Co., Ltd., Mimico Ont.
Standard Clay Products, Ltd., St. John's, Que.

FLUIDS, Embalming.

Girard & Godin, Three Rivers, Que.
Globe Casket Co., The, London, Ont.

FLUMES, Water, Iron and Steel.

Canada Ingot Iron Culvert Co. Ltd., Guelph, Ont.
Corbet Foundry Co., The, Owen Sound, Ont.
Corrugated Pipe Co., Ltd., The, Stratford, Ont.
Farand & Delorme Ltd. Montreal, Que
Hamilton, William. Co., Ltd., Peterborough, Ont.
Inglis Co., The John, Ltd., Toronto, Ont.
Marsh & Henthorn, Ltd., Belleville, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Powers, P. J. Co., Ltd., Ottawa, Ont.
Toronto Iron Works Co., Ltd., Toronto, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

FLUOR SPAR FLUORITE, often called "Blue John" or "Derbyshire Spar," because of its abundance in Derbyshire, England. It is of many colours and being comparatively soft, is easily worked into vases and other ornaments. Ground into powder, it is one of the ingredients of fine porcelaine and it is used as a flux for the reduction of metallic ores.

Fluorspar of a very fine quality and color occurs at Madoc, Hastings County, Ont., but it is not extensively worked. In 1912, 40 tons valued at $240, were shipped to the smelting works at Coppercliff. Deposits of flourspar have also been found in British Columbia.

FLUX, Welding.

L'Air Liquide Society, Montreal, Que.

FLY PAPER.

Stearns, Frederick & Co. of Canada Ltd. Windsor Ont.
Thum, The, O. & W. Co., Walkerville, Ont.

FLY POISON. (See Insecticides.)

FONTS, Church, Baptismal.

Valley City Seating Co., Ltd., The, Dundas, Ont.

FOODS, Animal and Poultry.

Birdland Society, London, Ont.
Canadian Stock Food Co., Ltd., Calgary, Ont.
Chisholm Milling Co., Ltd., Toronto, Ont.
Frasier, Thornton & Co., Ltd., Cookshire, Que.
Hackney Stock Food Co., Ltd., Toronto, Ont.
International Stock Food Co., Ltd., Toronto.
Jenkins, W. A. Mfg. Co., London, Ont.
McKenzie, A. E. Co., Ltd., Brandon, Man.
Morin, Dr. Ed. & Co., Ltd., Quebec, Que.
Ontario & Manitoba Flour Mills, Ltd., Ottawa, Ont.
Pratt Food Co. of Canada, Ltd., The, Toronto, Ont.
Smith, F. & Co., Ltd., Toronto, Ont.
Swift Canadian Co., Ltd., Winnipeg, Man.

FOODS, Bird.

Nicholson & Brock. Toronto, Ont.

FOODS, Infants'.

Christie, Brown & Co., Ltd., Toronto, Ont.
Mackay. The John, Co., Ltd., Bowmanville, Ont.
Wells & Richardson Co., Ltd., The, Montreal.

FOOTBALLS.

Reach, The A. J. Co., Toronto, Ont.
Western Leather Goods Co., Ltd., Toronto, Ont.
Winnett & Wellinger, Ltd., Toronto, Ont.

FORGES, Portable and Stationary.

Canadian Buffalo Forge Co., Ltd., Montreal,
Jardine, A. B., & Co., Hespeler, Ont.
London Foundry Co., Ltd., The, London, Ont.
Sheldon's, Ltd., Galt., Ont.
Thompson Mfg. Co., Ltd., The, Grand Bay, N.B.

FORGINGS, Iron.

Canada Forge Co., Ltd., Welland, Ont.
Coghlin, B. J., Co., Ltd., Montreal, Que.
Crossen Car Co., Ltd., Cobourg, Ont.
Dominion Bridge Co., Ltd., Montreal, Que.
Hall Engineering Works, The, Montreal, Que.
Lethbridge Iron Works Co., Ltd., Lethbridge, Alta.
Marine Iron Works, Victoria, B.C.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
McKay, Alexander, Montreal, Que.
McNeil, William P., & Co., New Glasgow, N.S.
Midland Engine Works Co., Midland, Ont.
Miller Brothers & Sons, Ltd., Montreal, Que.
Napanee Iron Works, Napanee, Ont.
Norsworthy, The C., Co., Ltd., St. Thomas, Ont.
Nova Scotia Car Works, Ltd., Halifax, N.S.
St. John Iron Works, Ltd., St. John, N. B.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Steel Co. of Canada, Ltd., Hamilton, Ont. and Montreal, Que.
Union Foundry & Machine Works, Ltd., The, St. John, N.B.
Watson, John, & Son, of Montreal, Ltd., Montreal, Que.
White, R. C., Montreal, Que.

FORGINGS, Steel.

Canada Forge Co., Ltd., Welland, Ont.
Coghlin, B. J., Co., Ltd., Montreal, Que.
Collingwood Shipbuilding Co., Ltd., Collingwood, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Miller Brothers & Sons, Ltd., Montreal, Que.
Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Steel Co. of Canada, Ltd., Hamilton and Toronto. Ont.
Union Foundry & Machine Works, Ltd., The, St. John, N.B.

FORKS, Hand.

Bedford Mfg. Co., The, Bedford, Que.
Canada Axe & Harvest Tool Mfg. Co., Ltd., Montreal, Que.
Maple Leaf Harvest Tool Co., Ltd., Tillsonburg, Ont.
Welland Vale Mfg. Co., Ltd., The, St. Catharines, Ont.

FORMS, Clothiers', Dressmakers', and Milliners'.

Dale & Pearsall, Toronto, Ont.
Richardson, A. S., & Co., Toronto, Ont.

FOUNDATIONS.

Ambursen Hydraulic Construction Co., of Canada, Ltd., Montreal.

FOUNDRY SUPPLIES.

Canadian Economic Lubricant Co., Ltd., Montreal, Que.
Canadian Hanson & Van Winkle Co., Ltd., Toronto, Ont.
Hamilton Facing Mill Co., Ltd., Hamilton, Ont.

FOUNTAINS, Drinking.

Mueller, H., Mfg. Co., Ltd., Sarnia, Ont.
Robertson, The James, Co., Ltd., Toronto.
Standard Sanitary Mfg. Co., Ltd., Toronto, Ont.
Standard Ideal Co., Ltd., Port Hope, Ont.

FOUNTAINS, Soda.

Fletcher Mfg. Co., Ltd., Toronto, Ont.
McLaughlin, J. J., Ltd., Toronto, Ont.

FOX.—The most numerous skins are those of the red fox of America, and the steppe fox of Central Asia supplies a large number. The most valuable is the skin of the black fox of Siberia and North America, then the silver fox and the blue Arctic fox are most esteemed.

FRAMES, Hat, Wire.

Walker, E. C., & Sons, Toronto, Ont.

FRANKINCENSE, a resinous gum, also known as Olibanum, that exudes from the bark of various species of Boswellia, growing in North Africa, Arabia, and the East Indies, but chiefly exported from Aden. Much of it comes from Somaliland, where it is obtained from B. Frereana, and is called Mayeta, from the port, Mahet. Resin from other trees, as species of Icica and Croton in America, are also frequently called Olibanum, and the common frankincense of pharmacists is the product of the common fir.

FREEZERS, Ice Cream.

De Laval Dairy Supply Co., Ltd., Peterborough, Ont.
Fletcher Mfg. Co., Ltd., Toronto, Ont.
Sheet Metal Products Co. of Canada, Ltd , Toronto. Ont.
Turner, John, & Son, Toronto, Ont.

FRENCH BERRIES. (See AVIGNON BERRIES.)

FRENCH PLUMS. (See PRUNES.)

FRENCH POLISH. (See VARNISH.)

FRETWORK, Moorish.

Otterville Mfg. Co., Ltd., Otterville, Ont.

FRICTION BOARD.

Blouin, F., Quebec, Que.
Richard & Company, Quebec, Que.
Walker, J. R., & Co., Montreal, Que.

FRIEZE, a coarse woollen cloth with a nap on one side.

FROGS, Railway.

Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
Canadian Steel Foundries, Ltd., Montreal, Que.
Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Sudbury Construction & Machinery Co The, Sudbury, Ont.
Vulcan Iron Works, Ltd., Winnipeg, Man.

FROGS, Railway, Manganese.

Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
Canadian Steel Foundries, Ltd., Montreal, Que

FRUIT, the small fruits which enter most largely into commerce are those which can be gathered before they are dead ripe, such as apples, oranges and bananas and those which dry without decaying, such as raisins and currants, nuts, almonds, dates and figs. Grapes also will keep for some time, but pears, peaches and other stone fruits do not acquire their full flavor unless they ripen on the tree. Fresh currants, gooseberries, strawberries, etc., are marketable, but generally only locally.

See separate headings for different kinds of fruit.

FRUIT BUTTER.

Heinz, H. J. ,Co., Leamington, Ont.
National Canners, Ltd., Hamilton, Ont.

FRUIT, Canned.

Acadia Canning and Creamery Co., Ltd., Kingston Station, N.S.
Alvinston Canning Co., Ltd., The, Alvinston, Ont.
Beamsville Preserving Co., Ltd., Beamsville, Ont.
British Canadian Canners, Ltd., Hamilton, Ont.
Chilliwack Canning & Preserving Co., Ltd., Chilliwack, B.C
Dominion Canners, Ltd., Hamilton, Ont.
Essex Canning & Preserving Co., Ltd., Essex, Ont.
Exeter Canning & Preserving Co., Ltd., The, Exeter, Ont.
Francaise Societe, de Specialtes Alimentaires, Montreal, Que.
Fraser Canning Co., Wallaceburg, Ont.
Fretz, Christian, Vineland, Ont.
Graham Co., Ltd., The, Belleville, Ont.
Heinz, H. J. ,Co., Leamington, Ont.
Imperial Packing Co., Ltd., Woodstock, N.B.
Kootenay-Columbia Preserving Works, Nelson, B.C.
Kootenay Jam Co., Ltd., The, Mission City, B.C.
Leas' Limited, The, Simcoe, Ont.
Loggie, W. S., & Co., Ltd., Chatham, NB.
London Canning Co., The, London, Ont.
New Burford Canning Co., Ltd., Burford, Ont.
Ontario Canners, Ltd., Sarnia, Ont.
Orser, J. B. & Son, Bloomfield, Ont.
Oshawa Canning Co., Ltd., The, Oshawa, Ont.
Purtelle, R. J., Canning Co., Bloomfield, Ont.
Robinson, D. E., & Co., Ingersoll, Ont.
Sanitary Packing Co., Ltd., Weston, Ont.
Smith, E. D., & Son, Ltd., Winona, Ont.
Stuart Limited, Sarnia, Ont.
Vineland Canning Co., Ltd., Vineland, Ont.
Wagstaffe, Limited, Hamilton, Ont.
Windsor, J. W., Montreal, Que.

FRUIT, Evaporated.

Biggs Fruit & Produce Co., Ltd., The, Burlington, Ont.
Erie Evaporating Co., The, Dunnville, Ont.
Graham Co., Ltd., The, Belleville, Ont.
Joynt, John, Lucknow, Ont.
Mahler Brothers, Chatham, Ont.
Middleton Fruit Company, The, Middleton, N.S.
Port Dover Evaporating Co., Port Dover, Ont.
Robinson, D. E., & Co., Ingersoll, Ont.
Town, L. S., Clinton, Ont.
Whitby Fruit & Vinegar Co., Whitby, Ont.

FUCHSINE, an aniline dye, which produces all the red tints.

FULLER'S EARTH, a clay consisting chiefly of silica alumina and water, which has a remarkable power of absorbing grease, and therefore is used for fulling cloth.

FULMINATE OF MERCURY, (Crude.)

Howard, A. L., Co., Sherbrooke, Que.

FURNACES, Candy.

Fletcher Mfg. Co., Ltd., Toronto, Ont.
Gardner, Robt., & Son, Ltd., Montreal, Que.
Small Bros., Dunham, Que.

FURNACES, Cupalo Blast.

Inglis, The John Co., Ltd., Toronto, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.

FURNACES, Hot Air.

Amherst Foundry Co., Ltd., Amherst, N.S.
Beaver Stove & Machinery Co., Ltd., The, Grand Mere, Que.
Bedford Stove Co., Bedford, Que.
Bigley, The R., Mfg. Co., Ltd., Toronto, Ont.
Brandon Machine & Implement Works, Brandon, Man.
Brett Mfg. Co., Ltd., Winnipeg, Man.
Bruce Agricultural Works, The, Teeswater, Ont.
Buck, The Wm. Stove Co., Ltd., Brantford, Ont.
Burrow, Stewart & Milne Co., Ltd., The, Hamilton, Ont.
Butterworth Foundry, Ltd., Ottawa, Ont.
Canadian Heating & Ventilating Co., Ltd., Owen Sound, Ont.
Clare Bros. & Co., Ltd., Preston, Ont.
Copp Stove Co., Ltd., Fort William, Ont.
Enterprise Foundry Co., The, Sackville, N.B.
Fawcett, Chas., Ltd., Sackville, N.B.
Galt Stove & Furnace Co., The, Galt, Ont.
Guelph Stove Co., Ltd., Guelph, Ont.
Hall, Zryd Foundry Co., Ltd., The, Hespeler, Ont.
Hamilton Stove and Heater Co., Ltd., The, Hamilton, Ont.
McClary Mfg. Co., London, Ont.
National Mfg. Co., Ltd., Ottawa, Ont.
Norsworthy, The C. Co., Ltd., St. Thomas, Ont.
Pease Foundry Co., Ltd., Toronto, Ont.
Pease-Waldon Co., Ltd., Winnipeg, Man.
Shantz, P. E., Preston, Ont.
Shaw & Mason, Ltd., Sydney, N.S.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Smith Foundry Co., Ltd., The, Fredericton, N.B.
Steel & Radiation, Ltd., Toronto, Ont.
Stewart, The Jas., Mfg. Co., Ltd., Woodstock, Ont.
Supreme Heating Co., Ltd., Welland, Ont.
Thompson & Sutherland, Ltd., New Glasgow, N.S
Tilden-Gurney Co., Ltd., Winnipeg, Man.
Toronto Furnace & Crematory Co., Ltd., The, Toronto, Ont.
Western Foundry Co., Ltd., The, Wingham, Ont.
Wheeler & Bain, Toronto, Ont.
Windsor Foundry & Machine Co., Ltd., Windsor, N.S.

FURNACES, Oil.

Sudbury Construction & Machinery Co., Ltd., The, Sudbury, Ont.

FURNACES, Smelting.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Fleck, Alexander, Ltd., Ottawa, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Sudbury Construction & Machinery Co., Ltd., The, Sudbury, Ont.

FURNACES, Smokeless.

Jones Underfeed Stoker Co., Ltd., Toronto, Ont.

FURNITURE, Art.

Bell's Galleries, Montreal, Que.
Crevier et Fils, Montreal, Que.
Murray-Kay, Ltd., Toronto, Ont.
Rawlinson, L., Toronto, Ont.
Rogers, Chas., & Sons, Ltd., Toronto, Ont.

FURNITURE, Bedroom.

Anthea Furniture Co., The, Berlin, Ont.
Beach Furniture Co., The, Cornwall, Ont.
Beach, The M. F. Co., Ltd., Winchester, Ont.
Bell Furniture Co., Ltd., The, Southampton,

FURNITURE, Bedroom.

Ont.
Berlin Furniture Co., Ltd., Berlin, Ont.
Brander, Morris & Co., Halifax, N.S.
Canada Furniture Mfrs. Ltd., Woodstock, Ont.
Coombe, The F. E., Furniture Co., Kincardine, Ont.
Crown Furniture Company, Preston, Ont.
Dominion Furniture Mfg. Co., Ltd., St. Therese, Que.
Durham Furniture Co., Ltd., Durham, Ont.
Eastern Townships Furniture Mfg. Co., Arthabaska, Que.
Gibbard Furniture Co., Ltd., Napanee, Ont.
Harriston Furniture Mfg. Co., Harriston, Ont.
Hepworth Mfg. Co., Ltd., The, Hepworth, Ont.
Hespeler Furniture Co., Ltd., Hespeler, Ont.
Jonquieres, La Cie. de Meubles de, Ltd., Jonquieres, Que.
Kensington Furniture Co., Goderich, Ont.
Kilgour, J. W., & Bro., Ltd., Beauharnois, Que.
King's Furniture Co., Ltd., Toronto, Ont.
Knechtal Furniture Co., Ltd., Hanover, Ont.
Krug Bros. & Co., Ltd., Chesley, Ont.
Labbe, Geo. H. & Co., Montreal, Que.
Labelle, H. C., & Cie., Ltd., Montreal, Que.
Lachute Furniture Co., Lachute, Que.
Lippert Furniture Co., Ltd., Berlin, Ont.
Malcolm, The Andrew, Furniture Co., Ltd., Kincardine, Ont.
Malcolm & Souter Furniture Co., Ltd., Inc., Hamilton, Ont.
Markdale Furniture Co., Ltd., Markdale, Ont.
McGill Chair Co., Ltd., Cornwall, Ont.
Meaford Mfg. Co., Ltd., Meaford, Ont.
Megantic Mfg. Co., Ltd., Lake Megantic, Que.
Mundell, John C., & Co., Elora, Ont.
National Furniture Co., Ltd., Berlin, Ont.
North American Bent Chair Co., Ltd., Owen Sound, Ont.
North American Furniture Co., Ltd., Owen Sound, Ont.
Oliver, J. & Son, Ltd., Ottawa, Ont.
Owen Sound Furniture Co., Ltd., Owen Sound, Ont.
Oxford Furniture Co., Ltd., Oxford, N.S.
St. Lawrence Furniture Co., River du Loup, Que.
Spiesz Furniture, Ltd., The, Hanover, Ont.
Stratford Chair Co., Stratford, Ont.
Thompson Furniture Co., Belleville, Ont.
Toronto Furniture Co., Ltd., Toronto, Ont.
Vancouver Furniture Co., Vancouver, B.C.
Victoriaville Furniture Co., Victoriaville, Que.
Weller Bros., Victoria, B.C.
Windsor Furniture Co., Ltd., Windsor, N.S.

FURNITURE, Church. (See also Seating, Church, Etc.)

Berlin Interior Hardwood Co., Ltd., Berlin, Ont.
Canadian Office & School Furniture Co., Ltd., The, Preston, Ont.
Crevier & Fils, Montreal, Que.
Hillsboro' Woodworking Mfg. Co., Hillsboro'. N.B.
Krug Bros. & Co., Ltd., Chesley, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Scotia Woodworkers, Ltd., Oxford, N.S.
Smith, Wm., & Son, Chesley, Ont.
Snider, J. B., Waterloo, Ont.
Sussex Mfg. Co., Ltd., Sussex, N.B.
Valley City Seating Co., Ltd., Dundas, Ont.

FURNITURE, Den and Library.

Canada Furniture Mfrs. Ltd., Woodstock, Ont.
Elmira Furniture Co., Ltd., Elmira, Ont.
Kreiner, J., & Co., Berlin, Ont.
North American Furniture Co., Ltd., Owen Sound, Ont.
Rogers, Chas., & Sons, Ltd., Toronto, Ont.
Waterloo Furniture Co., Ltd., Waterloo, Ont.

FURNITURE, Dining-room. (See Tables, Sideboards, Buffets, Etc.)

FURNITURE, Household.

Anthea Furniture Co., The, Berlin, Ont.
Berlin Fibre Products, Ltd., Berlin, Ont.
Berlin Furniture Co., Ltd., Berlin, Ont.
Bourassa, P. E., & Son, Montreal, Que.
Brander, Morris & Co., Halifax, N.S.
Canada Furniture Mfrs. Ltd., Woodstock, Ont.
Dominion Furniture Mfg. Co., Ltd., St. Therese, Que.
Gibbard Furniture Co., Ltd., Napanee, Ont.
Hachborn, Geo. H., & Co., Berlin, Ont.
Harriston Furniture Mfg. Co., Harriston, Ont.
Hay & Co., Ltd., Woodstock, Ont.
Hepworth Mfg. Co., Ltd., The, Hepworth, Ont.
Hibner Furniture Co., Ltd., Berlin, Ont.
Jonquieres, La Cie. de Meubles de, Ltd., Jonquieres, Que.
Kensington Furniture Co., Goderich, Ont.
Kilgour, J. W., & Bro., Ltd., Beauharnois, Que.
King's Furniture Co., Ltd., Toronto, Ont.
Knechtal Furniture Co., Ltd., Hanover, Ont.
Krug Bros. & Co., Ltd., Chesley, Ont.
Labbe, Geo. H. & Co., Montreal, Que.
Labelle, H. C., & Cie., Ltd., Montreal, Que.
Lachute Furniture Co., Lachute, Que.
Lippert Furniture Co., Ltd., Berlin, Ont.
Malcolm, The Andrew, Furniture Co., Ltd., Kincardine, Ont.
McGill Chair Co., Ltd., Cornwall, Ont.
McLagan, The, George, Furniture Co., Ltd., Stratford, Ont.
Meaford Mfg. Co., Ltd., Meaford, Ont.
Megantic Mfg. Co., Ltd., Lake Megantic, Que.
Metropolitan Mfg. Co., Toronto, Ont.
Morgan, Henry, & Co., Ltd., Montreal, Que.
Mundell, John C., & Co., Elora, Ont.
Murray-Kay, Ltd., Toronto, Ont.
National Furniture Co., Ltd., Berlin, Ont.
North American Bent Chair Co., Ltd., Owen Sound, Ont.
Oliver, J. & Son, Ltd., Ottawa, Ont.
Orillia Furniture Co., Ltd., Orillia, Ont.
Owen Sound Furniture Co., Ltd., Owen Sound, Ont.
Oxford Furniture Co., Ltd., Oxford, N.S.
Paquet & Godbout, St. Hyacinthe, Que.
Peterborough Furniture Co., Ltd., Peterborough, Ont.
Rogers, Chas., & Sons, Ltd., Toronto, Ont.
Rudd, S. R., Arnprior, Ont.
Spiesz Furniture, Ltd., The, Hanover, Ont.
Strathroy Furniture Co., Ltd., Strathroy, Ont.
Thompson Furniture Co., Belleville, Ont.
Tickell & Sons, Belleville, Ont.
Toronto Furniture Co., Ltd., Toronto, Ont.
Valiquette, N. G., Ltd., Montreal, Que.
Vancouver Furniture Co., Vancouver, B.C.
Victoriaville Furniture Co., Victoriaville, Que.
Waterloo Furniture Co., Ltd., Waterloo, Ont.
Weller Bros., Victoria, B.C.

FURNITURE, Metallic.

Fletcher Mfg. Co., Ltd., Toronto, Ont.
Office Specialty Mfg. Co., Ltd., Toronto, Ont.
Steel Equipment Co., Ltd., Ottawa, Ont.

FURNITURE, Mission.

Baetz Bros. & Co., Berlin, Ont.
Bell's Galleries, Montreal, Que.
Canada Furniture Mfrs. Ltd., Woodstock, Ont.
Elmira Furniture Co., Ltd., Elmira, Ont.
Mundell, John C., & Co., Elora, Ont.
Murray-Kay, Limited, Toronto, Ont.
North American Furniture Co., Ltd., Owen Sound, Ont.
Schierholtz Furniture Co., Ltd., The, New Hamburg Ont.
Snyder Bros. Upholstering Co., Ltd., Waterloo, Ont.
Waterloo Furniture Co., Ltd., Waterloo, Ont.

FURNITURE, Office. (See also Desks, Stools, Tables, Etc.)

Baird Bros., Plattsville, Ont.
Berlin Interior Hardwood Co., Ltd., Berlin, Ont.
Canada Furniture Mfrs. Ltd., Woodstock, Ont.
Canadian Office & School Furniture Co., Ltd., Preston, Ont.
Coombe, The F. E., Furniture Co., Kincardine, Ont.
Crevier & Fils, Montreal, Que.
Globe Furniture Co., Ltd., The, Waterloo, Ont.
Globe-Wernicke Co., Ltd., Stratford, Ont.
Gosselin, Joseph, Levis, Que.
Kilgour, J. W., & Bro., Ltd., Beauharnois, Que.
Krug, The H., Furniture Co., Ltd., Berlin, Ont.
Labbe, Geo. H. & Co., Montreal, Que.
Labelle, H. P., & Cie, Ltd., Montreal, Que.
Library Bureau of Canada, Ltd., Ottawa, Ont.
Mundell, John C., & Co., Elora, Ont.
North American Bent Chair Co., Ltd., Owen Sound, Ont.
Northern Planing Mills, Ltd., Saskatoon, Sask.
Office Specialty Mfg. Co., Ltd., Toronto, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Preston Furniture Co., Ltd., Preston, Ont.
Scotia Woodworkers, Ltd., Oxford, N.S.
Snider, J. B., Waterloo, Ont.
Steel Equipment Co., Ltd., Ottawa, Ont.
Valiquette, N. G., Ltd., Montreal, Que.
Weller Bros., Victoria, B.C.

FURNITURE, Parlor.

Baetz Bros. & Company, Berlin, Ont.
Canadian Furniture Mfrs., Ltd., Woodstock, Ont.
Canada Mattress Mfg. Co., Victoriaville, Que.
Dominion Furniture Mfg. Co., Ltd., St. Therese, Que.
Dymond Colonial Co., Ltd., Strathroy, Ont.
Ellis Furniture Co., The, Ingersoll, Ont.
Elora Furniture Co., The, Elora, Ont.
Fournier, Edouard, Montreal, Que.
Hachborn, Geo. H., & Co., Berlin, Ont.
Hespeler Furniture Co., Ltd., Hespeler, Ont.
Hibner Furniture Co., Ltd., Berlin, Ont.
Kilgour, J. W., & Bro., Ltd., Beauharnois, Que.
Knechtal Furniture Co., Ltd., Hanover, Ont.
Krug Bros. Co., Ltd., Chesley, Ont.
Krug, The H., Furniture Co., Ltd., Berlin, Ont.
Labbe, Geo. H., & Co., Montreal, Que.
Labelle, H. P., & Cie, Ltd., Montreal, Que.
Lippert Furniture Co., Ltd., Berlin, Ont.
Malcolm & Souter Furniture Co., Ltd., Hamil-
McLagan, The George, Furniture Co., Ltd., Stratford, Ont.
Mundell, John C., & Co., Elora, Ont.
North American Bent Chair Co., Ltd., Owen Sound, Ont.
Schierholtz Furniture Co., Ltd., The, New Hamburg, Ont.
Snyder Bros. Upholstering Co., Ltd., Waterloo, Ont.
Tombyll Upholstering & Frame Mfg. Co., Ltd., Montreal, Que.
Valiquette, N. G., Ltd., Montreal, Que.
Walker & Clegg, Wingham, Ont.
Waterloo Furniture Co., Ltd., Waterloo, Ont.
Weller Bros., Victoria, B.C.
Woeller, Bolduc & Co., Waterloo, Ont.
Wunder Furniture Mfg. Co., Ltd., Berlin, Ont.

FURNITURE, Reed and Rattan.

Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Gendron Mfg. Co., Ltd., Toronto, Ont.
Imperial Rattan Co., Ltd., Stratford, Ont.
Kilgour, J. W. & Bro., Ltd., Beauharnois, Que.
Smith, J. E., & Co., Windsor, N.S.

FURNITURE, School and Lodge Room.

Bruce Agricultural Works, The, Teeswater, Ont.
Canadian Office & School Furniture Co., Ltd., The, Preston, Ont.
Krug Bros. Co., Ltd., Chesley, Ont.
Lee Mfg. Co., Ltd., Pembroke, Ont.
North American Bent Chair Co., Ltd., Owen Sound, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Snider, J. B., Waterloo, Ont.
Valley City Seating Co., Ltd., Dundas, Ont.
Vilas, W. F., Cowansville, Que.

FURNITURE, Upholstered.

British Columbia Bedding & Upholstering Co., Ltd., Vancouver, B.C.
Canada Furniture Mfrs., Ltd., Woodstock,
Canada Mattress Mfg. Co., Victoriaville, Que.
Dymond Colonial Co., Ltd., Strathroy, Ont.
Eaton, The T., Co., Ltd., Toronto, Ont.
Ellis Furniture Co., The, Ingersoll, Ont.
Gold Medal Furniture Mfg. Co., Ltd., Toronto, Ont.
Imperial Furniture Co., Toronto, Ont.
Imperial Rattan Co., Ltd., Stratford, Ont.
Leslie's, Winnipeg, Man.
Lippert Furniture Co., Ltd., Berlin, Ont.
Montreal Upholstering Co., Montreal, Que.
Morlock Bros., Ltd., Hanover, Ont.
Mundell, John C., & Co., Elora, Ont.
Restmore Mfg. Co., Ltd., Vancouver, B.C.
Schierholtz Furniture Co., Ltd., The, New Hamburg, Ont.
Snyder Bros. Upholstering Co., Ltd., Waterloo, Ont.
Tombyll Upholstering & Frame Mfg. Co., Ltd., Montreal, Que.
Valiquette, N. G., Ltd., Montreal, Que.
Walker & Clegg, Wingham, Ont.
Waterloo Furniture Co., Ltd., Waterloo, Ont.
Woeller, Bolduc & Co., Waterloo, Ont.
Wunder Furniture Mfg. Co., Ltd., Berlin, Ont.

FURS and FEATHERS.—The greater part of the most valuable furs are obtained in the Northern hemisphere, especially Canada and Siberia. Some seal skins come from South America, Africa supplies monkey skins and Australia kangaroo, wallaby, opossum skins and rabbit skins in large quantities. Feathers are a product of all parts of the world. They are plucked from domestic fowls and from birds in all civilized countries for beds, pillows, etc. For the same purpose feathers are procured from the eider-down duck, the wild goose and various kinds of seabirds. Ornamental feathers come principally from tropical and subtropical countries where the birds have generally a brighter plumage.

The total export of furs from Canada for the fiscal year ending March 31st, 1914, amounted to $5,824,302, and the total imports to $3,784,448.

FURS.

Allan, A. A. & Co., Ltd., Toronto, Ont.
Ansley-Dineen Hat & Fur Co., Ltd., Toronto, Ont.
Barrie's Limited, Peterborough, Ont.
Berlin Robe & Clothing Co., Ltd., Berlin, Ont.
Boulter, Waugh & Co., Ltd., Montreal, Que.
Bordeau, J. & Son, Montreal, Que.
Brandon Fur & Clothing Mfg. Co., Brandon, Man.
Brenton, The Albert J. Co., Ltd., Winnipeg, Man.
Brereton & Steward, Toronto, Ont.
Brodey, Draimin Fur Co., Toronto, Ont.
Carter, E. T., & Co., Toronto, Ont.
Dechene & Poulin, Quebec, Que.
Eaton, The T. Co., Ltd., Toronto, Ont.
Everett, C. & E., Ltd., St. John, N.B.
Excelsior Fur Dressing & Dye Works, Montreal.
Fairweathers, Limited, Toronto, Ont.
Freid, Grills & Co., Toronto, Ont.
Freifield, L. & Co., Toronto, Ont.
Gillespie Fur Co., Ltd., The, Toronto, Ont.
Glassco, G. F., & Co., Hamilton, Ont.
Gnaedinger, L., Son & Co., Montreal, Que.
Holt, Renfrew & Co., Quebec, Que.

Jose, R., Toronto, Ont.
Laliberte, J. B., Quebec, Que.
Magee, D. & Sons, Ltd., St. John, N.B.
McComber & Cummings, Montreal, Que.
Mont, Jones, H., St. John, N.B.
Normandin, O., Montreal, Que.
Orr, Wm. E., & Co., Toronto, Ont.
Peck, John W. W., & Co., Ltd., Montreal, Que.
Quebec Fur Mfg. Co., The, Quebec, Que.
Redmond Co., Ltd., The, Montreal, Que.
Sandham & Thurston, Toronto, Ont.
Schnaufer F., Ltd., Montreal, Que., and Toronto. Ont.
Schwartz, J. & Co., Toronto, Ont.
Sellers-Gough Fur Company, Toronto, Ont.
Silver B., & Co., Montreal, Que.
Stone Wm., Sons, Ltd., Woodstock, Ont.
Thompson Mfg. Co., Ltd., Toronto, Ont.
Vineberg & Co., Montreal, Que.

FUSES, Electric.

Canada Metal Co., Ltd., Toronto, Ont.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.

FUSES, Explosive.

Canadian Explosives, Ltd., Montreal, Que.

FUSIBLE METAL, an alloy of bismuth, lead, and tin, which melts at a temperature below that of boiling water. It is used in stereotyping and takings casts of medals, &c.

FUSTIAN, a name of certain heavy cotton fabrics, chiefly used for workmen's clothing. Among them are velveret, velveteen, moleskin, and corduroy. They are almost all of the nature of velvet, that is, the warp is raised into loops, but in corduroy the loops are not cut.

FUSTIC, the wood of a thorny tree, called moral largely used for the extraction of a yellow dye. The best qualities come from Cuba and Mexico.

G

GALAM BUTTER. (See BUTTER-TREE.)

GALANGALE, the root imported into Europe is the lesser Galangale. It belongs to the genus Zingiberaceæ, and grows chrefly in Hainan and the adjoining peninsula of the Chinese mainland. The roots are used as a substitute for ginger.

GALBANUM, a gum resin, derived from umbelliferous plants of Persia. It exudes from the stems and base of the leaves and contains a volatile oil. Plasters are made of it, and occasionally it is administered internally.

GALENA, or Lead Glance, lead sulphide, the most important of lead ores. Very frequently it contains an admixture of silver and other minerals. **(See LEAD and SILVER.)**

GALIPOT. (See TURPENTINE.)

GALL, the bile accumulated in gall bladders. Ox gall is used for removing grease and in mixing colours, which then adhere more readily to the surface painted on.

GALLIC ACID, an acid contained in gall-nuts, valonia, divi-divi, and other vegetable products. It forms nearly colourless acicular crystals. It is a good astringent, and sometimes takes the place of gall-nuts in the manufacture of ink. Pyrogallic acid, obtained by subjecting crystals of gallic acid to strong heat, is used in photography.

GALLS, gall-nuts, nut-galls, or oak-apples, are abnormal growths produced in various trees and plants by the deposition of the eggs of certain insects. They contain tannic acid, and therefore are employed in tanning leather; also in the manufacture of ink. The oak-nuts of the Levant from Aleppo are the best. Galls are also exported from Persia, China and Japan.

GALVANISED IRON, iron dipped into melted zinc. Roofing plates, buckets, wire, &c., thus coated are less liable to rust.

GALVANIZED IRON GOODS.

Aubry, A., & Fils, Montreal, Que.
Davidson, The Thos., Mfg. Co., Ltd., Winnipeg, Man., and Montreal, Que.
Farquhar Bros., Ltd., Halifax, N.S.
Irwin, Thos., & Son, Hamilton, Ont.
McClary Mfg. Co., London, Ont.
Piper, The Hiram L., Co., Ltd., Montreal, Que.
Prowse, Geo. R., Range Co., Ltd., Montreal.
Wheeler & Bain, Toronto, Ont.

GALVANIZERS.

Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
Davidson, The Thos., Mfg. Co., Ltd., Montreal.
Goold, Shapley & Muir Co., Ltd., Brantford, Ont.
McClary Mfg. Co., London, Ont.
Meadows Geo. B. Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.

GAMBIER, or Gambir, is an earthylooking, light-brown substance prepared from the young leaves of a climbing plant of the order Rubiaceæ, which grows in the Malay Peninsula and Archipelago. Being in its rough state adulterated with a large proportion of cutch, it is often called pale catechu, and it is also known as Terra Japonica. In Europe dyers and calico-printers use gambier to produce black and brown shades.

GAMBOGE, or Camboge, a gum resin that exudes from the trunk of a species of Guttiferæ, which grow in Cambodia, Siam, and Ceylon. In medicine it is used as a violent purgative, and it forms yellow water-colours and varnishes.

GARAGES, Portable, Metal and Wood.

Canadian Metal Shelter Co., Winnipeg, Man.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
O-Rib-O Mfg. Co., Winnipeg, Man.
Schultz Bros. Co., Ltd., The, Brantford, Ont.
Winnipeg Steel Granary & Culvert Co., Ltd., Winnipeg, Man.

GARANCINE, a dyeing extract prepared from madder.

GARNETS, a red stone which is often set in jewellery. There are several kinds, composed of lime, magnesia or iron and alumina or lime, with iron or chrominum. The best are the so-called Syrian garnets from Syriam in Pegu. Bohemia and Spain also produce these stones. Common opaque garnets are used as abrasive material, and more than 3,000 tons are mined for this purpose in the United States.

GARO WOOD, a name for the **LIGN ALOES OF UALACCA.**

GARTERS.

Berlin Suspender Co., Ltd., Berlin, Ont.
Boston Mfg. Co., Ltd., Toronto, Ont.
Canadian Suspender & Mfg. Co., Toronto, Ont.
Eisman & Company, Toronto, Ont.
Glassford Brothers, Ltd., Montreal, Que.
Globe Suspender Co., Rock Island, Que.
Halls, Limited, Brockville, Ont.
King Suspender Company, Toronto, Ont.
Kleinert, J. B., Rubber Co., Toronto, Ont.
Leadlay Mfg. Co., Ltd., Winnipeg, Man.
Standard Suspender Co., Montreal, Que.
Westwood, C. H., Mfg. Co., Ltd., Toronto, Ont.

GAS (Natural) and OIL (Wells.)

Aikens, Lalor & Smith, Dunnville, Ont.
Aikens, Lalor & Beck, South Cayuga, Ont.
Alberta Rolling Mills Co., Ltd., Medicine Hat, Alta.
Aldrich Gas & Oil Co., Ltd., Selkirk, Ont.
Beaver Oil and Gas Co., Ltd., Market Street, Brantford, Ont.
Bertie Natural Gas Co., Ltd., Ridgeway, Ont.
Brandon's Oil and Gas Co., Ltd., Milton, Ont.
Canadian Gas Co., Ltd., Detroit, Mich.
Canadian Pacific Ry., Medicine Hat, Alta.
Canadian Western Natural Gas, Light, Heat & Power Co., Ltd., Calgary, Alta.
Canboro Natural Gas, Canboro, Ont.
Canfield Natural Gas Co., Canfield, Ont.
Cheapside Gas Co., Cheapside, Ont.
City of Medicine Hat Gas Commission, Medicine Hat, Alta.
City of Wetaskiwin, Wetaskiwin, Alta.
Coleman, J. A., Wellandport, Ont.
Commonwealth Oil & Gas Co., Ltd., Hamilton, Ont.
Crystal Oil & Gas Co., Paris, Ont.
Danskin D., Cainsville, Ont.
Dominion Natural Gas Co., Ltd., Buffalo, N.Y.
Dunn Natural Gas Co., Ltd., Dunnville, Ont.
Empire Limestone Co., Bufaflo. N.Y.
Enterprise Gas Co., Delhi, Ont.
Fisherville Gas Co., Ltd., Fisherville, Ont.
Grand River Oil and Gas Co., Brantford, Ont.
Hart, Melvin G., Attercliff Station, Ont.
Holmes Gas Co., Ltd., Selkirk, Ont.
Home Natural Gas Co., Ltd., Hamilton, Ont.
Hoover, Selkirk, Ont.
Hoover, David E., Rainham Centre, Ont.
Industrial Natural Gas Co., Port Robinson, Ont.
Kindy & Sons, Selkirk, Ont.
Koehler & Aikins, Cayuga, Ont.
Lalor, F. R., Dunnville, Ont.
Lalor & Vonker, Dunnville, Ont
Lamb, Alfred, Selkirk.
Lambe, Walter B., Nanticoke, Ont.
Lint & Emmerson, Attercliff, Ont.
Maple City Oil & Gas Co., The, Chatham, Ont.
Maritime Oil Fields, Ltd., Moncton, N.B.
Marshall, James, Lime Works, Hamilton, Ont.
Medicine Hat Brick & Fire Proofing Co., Medicine Hat, Alta.
Medina Natural Gas Co., Ltd., Chatham, Ont.
Melick, Moote & Lymburner, Dunnville, Ont.
Midfield Natural Gas Co., Hamilton, Ont.
Miner & Melenbacker, Humberstone, Ont.
Nanticoke Natural Gas Co., Ltd., Nanticoke, Ont.
National ((Utora) Gas Co., Ltd., Rainham Centre, Ont.
Natural Gas Co. of Ontario, Ltd., Oil City, Pa.
Niagara Natural Gas Fuel Co., Ltd., Sherkston, Ont.
Norfolk Gas Co., Port Dover, Ont.
North Shore Gas Co., Ltd., Hamilton, Ont.
Onondaga Oil & Gas Co., Ltd., The, Brantford, Ont.
Oxford Oil & Gas Co., Ltd., Brantford, Ont.
Port Colborne-Welland Natural Gas Co., Ltd., Port Colborne, Ont.
Port Maitland Natural Gas Co., Ltd., Port Maitland.
Port Rowan Natural Gas Co., Ltd., Pittsburg, Pa.
Producers' Natural Gas Co., Ltd., Hamilton, Ont.
Provincial Natural Gas & Fuel Co., Niagara Falls, Ont.
Redcliff Brick & Coal Co., Ltd., Redcliff, Alta.
Redcliff Realty Co., Redcliff, Alta.
Redcliff Rolling Mill & Bolt Co., Redcliff, Alta.
Regal Gas Company, Hagersville, Ont.
Ricker & Mower, Canboro, Ont.
Rolston & Bennett, Dunnville, Ont.
Selkirk Gas & Oil Co., Ltd., Selkirk, Ont.
Snively, F. L., Dunnville, Ont.
South Cayuga Natural Gas Co., South Cayuga, Ont.
Standard Natural Gas Co., Ltd., Dunnville, Ont.
Standard Gas Co., Ltd., Port Colborne, Ont.
Telephone City Oil & Gas Co., Ltd., Brantford, Ont.
Union Natural Gas Co. of Canada, Ltd., The, Niagara Falls, Ont.
United Gas Company, Ltd., St. Catharines, Ont.
Van Sickle, A. W., Onondaga, Ont.
Waines & Root Gas Co., Ltd., Dunnville, Ont.
Walker, Thos., Tuscarora, Ont.
Welland County Lime Works Co., Ltd., Port Colborne, Ont.
Wentworth Natural Gas Co., Ltd., Hamilton, Ont.

GAS, Acetylene, Generating and Compressing.

Blaugas Co. of Canada, Ltd., The, Montreal, Que.
Bradford Gas Co., Ltd., Toronto, Ont.
Commercial Acetylene Railway Light & Signal Co., Toronto, Ont.
Compressed Gas Co., Ltd., Vancouver, B.C.

GAS, Carbonic Acid.

Canadian Carbonate Co., Ltd., Montreal, Que.
Dominion Carbonic Co., Ltd., Toronto, Ont.

GAS FIXTURES.

Barton Netting Co., Ltd., Windsor, Ont.
Bennett & Wright Co., Ltd., Toronto, Ont.
Chadwick Brass Co., Ltd., The, Hamilton, Ont.
Crown Electrical Mfg. Co., Ltd., Brantford, Ont.
Farquhar Bros., Ltd., Halifax, N.S.
Galt Electric & Gas Fixture Co., Galt, Ont.
Garth Company, The, Montreal, Que.
Keiths, Limited, Toronto, Ont.
McGuire, W. J., Ltd., Toronto, Ont.
Marshal-Davis, Ltd., Dunnville, Ont.
Mitchell, The Robt., Co., Ltd., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

GASKETS.

Canadian Asbestos Co., Montreal ,Que.
Canadian Gasket Co., Bridgeburg, Ont.
Hamilton Engine Packing Co., Hamilton, Ont.
Soper, Robt., Hamilton, Ont.
Wing, J. T., & Co., Ltd., Windsor, Ont.

GASKETS and GASKET TUBING, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
Gutta Percha & Rubber, Ltd., Toronto, Ont.

GASOLENE. (See PETROL and PETROLEUM.)

GASOLINE.

British American Oil Co., Ltd., Toronto.
Canadian Oil Companies, Ltd., Toronto, Ont., and Winnipeg, Man.
Crown Oil Refining Co., Ltd., Hamilton, Ont.
Empire Oil Company, Montreal.

Empire Refining Co., Ltd., The, Wallaceburg, Ont.
Imperial Oil Co., Ltd., Sarnia, Ont., Toronto, Ont., and Montreal, Que.
Waterloo Mfg. Co., Ltd., Waterloo, Ont.

GATES, Steel.

Frost Wire Fence Co., Ltd., Hamilton, Ont.
Owen Sound Wire Fence Co., Ltd., The, Owen Sound, Ont.

GATES, Wire.

Banwell-Hoxie Wire Fence Co., Ltd., Hamilton, Ont.
Canadian Gate Co., Ltd., Guelph, Ont.
Canadian Steel & Wire Co., Ltd., Hamilton, Ont.
Cummings Brass, Iron & Wire Co., Ltd., Winnipeg, Man.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Frame & Hay Fence Co., Ltd., The, Stratford, Ont.
Frost Wire Fence Co., Ltd., Hamilton, Ont.
Great West Wire Fence Co., Ltd., Winnipeg, Man.
Ideal Wire Fence Co., Ltd., Winnipeg, Man.
Lamb, H. R. Fence Co., Ltd., London, Ont.
McGregor-Banwell Fence Co., Ltd., Walkerville, Ont.
Manitoba Anchor Wire Fence Co., Ltd., The, Winnipeg, Man.
Meadows Geo. B. Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
New Brunswick Wire Fence Co., Ltd., Moncton, N.B.
Owen Sound Wire Fence Co., Ltd., The, Owen Sound, Ont.
Page Wire Fence Co., Ltd., Walkerville, Ont.
Sarnia Fence Co., Ltd., Sarnia, Ont.
Shipway Iron Bell & Wire Mfg. Co., Ltd., Toronto, Ont.
Standard Wire Fence Co., of Woodstock, Ltd., Woodstock, Ont.
Steel Co. of Canada, Ltd., Montreal, Que.
Winnipeg Wire & Iron Works, Ltd., Winnipeg, Man.

GATES, Wrought Iron.

Anthony Wire Fence Co. of Canada, Ltd., Walkerville, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Cummings Brass, Iron & Wire Co., Ltd., Winnipeg, Man.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Meadows, Geo. B. Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Partridge & Sons, Kingston, Ont.
Shipway Iron Bell & Wire Mfg. Co., Ltd., Toronto, Ont.
Steel Co. of Canada, Ltd., Montreal, Que.
Taylor, J. J., Ltd., Toronto, Ont.
Turnbull Elevator Mfg. Co., Ltd., Toronto, Ont.
Westminster Iron Works, New Westminster, B.C.
Winnipeg Wire & Iron Works, Ltd., Winnipeg, Man.

GAUGES, Air.

Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Wallaceburg Brass & Iron Mfg. Co., Ltd., Wallaceburg, Ont.

GAUGES, Railway Track, Steel.

Canadian Steel Foundries, Ltd., Montreal, Que.
Coghlin, B. J., Co., Ltd., Montreal, Que.

GAUGES, Vacuum, Water and Steam.

Babcock & Wilcox, Ltd., Montreal, Que.
Canadian Detroit Lubricating Co., Ltd., Walkerville, Ont.
Garth Company, The, Montreal, Que.
Mitchell, The Robt., Co., Ltd., Montreal, Que.
Morrison, The Jas. Brass Mfg. Co., Ltd., Toronto, Ont.
Wallaceburg Brass & Iron Mfg. Co., Ltd., Wallaceburg, Ont.

GAUZE, an open fabric of silk, cotton, or linen, in which the threads of the warp are crossed between each thread of the weft. The best silk gauzes are chosen for crape. For wire gauze see **WIRE.**

GEARING, Cast Iron.

Barber, Chas., & Sons, Meaford, Ont.
Calgary Iron Works, Ltd., The, Calgary, Alta.
Dodge Mfg. Co., Ltd., Toronto, Ont.
Fleck, Alexander, Ltd., Ottawa, Ont.
Goldie & McCulloch Co., Ltd., The, Galt, Ont.
Hamilton, Wm. Co., Ltd., Peterborough, Ont.
Hamilton Motor Works, Ltd., Hamilton, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
McOuat, T., & Son, Lachute Mills, Que
Miller Bros. & Sons, Ltd., Montreal, Que.
Muskoka Foundry Co., Bracebridge, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Thetford, Cie., Ltd., La Fonderie de, Thetford Mines, Que.
Waterous Engine Works Co., Ltd., Brantford, Ont.
Williams & Wilson, Ltd., Montreal, Que.

GEARING, Machine Cut and Dressed.

Barber, Chas., & Sons, Meaford, Ont.
Bell, B. & Son Co., Ltd., St. George, Ont.
Calgary Iron Works, Ltd., The, Calgary, Alta.
Canada Iron Corporation, Ltd., Montreal, Que.
Corbet Foundry Co., Ltd., Owen Sound, Ont.
Dodge Mfg. Co., Ltd., Toronto, Ont.
Drolet, F. X., Quebec, Que.
Fleck, Alexander, Ltd., Ottawa, Ont.
Gardner, Robt., & Son, Ltd., Montreal, Que.
Goldie & McCulloch Co., Ltd., The, Galt, Ont.
Hamilton Gear & Machine Co., The, Toronto,
Hamilton, Wm. Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Jones & Glassco, Montreal, Que.
Kennedy, Wm. & Sons, Ltd., Owen Sound, Ont.
Long, The E. Mfg. Co., Ltd., Orillia, Ont.
McOuat, T., & Son, Lachute Mills Que.
Miller Bros. & Sons, Ltd., Montreal, Que.
Modern Machine & Electrical Works, Toronto.
Northern Crane Works, Ltd., Walkerville, Ont.
Oxford Foundry & Machine Co., Ltd., Oxford, N.S.
Schofield-Holden Machine Co., Ltd., Toronto, .
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Stevens Co. of Galt, Ltd., The, Galt, Ont.
Wilson, J. C., & Co., Glenora,Ont.

GEARS, Rawhide.

Gardner, Robt., & Son, Ltd., Montreal, Que.

GELATINE. (See GLUE.)

GELATINE.

Canada Glue Co., Ltd., Brantford, Ont.
Clark, J. Sutton, Ltd., St. George, N.B.
Marquis, F. Canac, Quebec, Que.
McLarens, Ltd., Hamilton, Ont.

GENERATORS, Acetylene Gas.

Beach Foundry Co., Ltd., Winchester, Ont.
Canada Producer & Gas Engine Co., Ltd., Barrie, Ont.
L'Air Liquide Society, Montreal, Que.
Monitor Mfg. Co., Ltd., The, Fredericton, N.B.
Piper, The Hiram L. Co., Montreal, Que.

GENERATORS, Electric.

Canadian Crocker-Wheeler Co., Ltd., The, St. Catharines, Ont.
Canadian Electrical & Motor Co., Ltd., Toronto.
Canadian General Electric Co., Ltd., Toronto.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Consolidated Electric Co., Ltd., Toronto, Ont.
Hinton Electric Co., Ltd., Vancouver, B.C.
Toronto & Hamilton Electric Co., Hamilton, Ont.

GENERATORS, Hot Air.

Smart, The Jas. Mfg. Co., Ltd., Brockville, Ont.

GENETTE, a genus of small carnivores sometimes included among the civets. They live in Africa, and the common genette is also found in the south of Europe and Syria. The fur is an article of commerce.

GENEVA. (See HOLLANDS.)

GENTIAN.—The roots of the common yellow gentian are gathered in the Alps, and are much employed in medicine as a stomachic. Bitters are also made from them. The roots of other species are less valuable.

GERANIUM OIL, used as a substitute for oil of roses. The true oil is obtained from Pelargonium radula, but oil is also obtained from other species, and it is further mixed with Andropogon oil. **(See GRASS OILS.)**

GERMAN SILVER, an alloy of copper, nickel, and zinc, much used for making spoons, forks, jugs, teapots, &c., which are frequently plated with silver.

GERMAN SILVER, Sheet & Plate.

Brown's Copper & Brass Rolling Mills, New Toronto, Ont.

GHEE, a fluid butter made in the East from the milk of buffaloes. The milk is boiled before churning.

GIN, a British spirit distilled from grain and flavoured with oil of turpentine and common salt. **(See also HOLLANDS.)**

GIN.

Melcher's Gin & Spirits Distillery Co., Ltd., The, Montreal, Que.

GINGELLY. (See SESAMUM.)

GINGER.—Most species of Zingiberaceæ produce rhizomes, useful as condiments and stomachics. They are cultivated in the East Indies, West Indies, and Sierra Leone. Jamaica ginger is considered the best. The roots are preserved in syrup or candied. Black ginger and white ginger are the results of different modes of treatment, and the difference of shade is not great. Ginger ale and ginger beer are articles of commerce.

GINGHAM, a cotton material woven of threads previously dyed. Originally made in India, but now chiefly in Manchester and Glasgow.

GINGHAMS.

Canadian Cottons, Ltd., Montreal, Que.

GINSENG, the root of Panax ginseng, in great repute in China as a medicine. The most prized is the ginseng of Korea. The North American species is also imported into China, but fetches a lower price.

GIRDERS, Iron & Steel.

Algoma Steel Bridge Co., Ltd., Winnipeg, Man.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Corbet Foundry Co., The, Owen Sound, Ont.
Dominion Architectural Iron Works, Ltd., Montreal, Que.
Dominion Bridge Co., Ltd., Montreal, Que.
Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
Hill, A., & Co., Mitchell, Ont.
McGregor & McIntyre, Ltd., Toronto, Ont.
National Bridge Co. of Canada, Ltd., Montreal, Que.
Peterson Bros. Iron Works, Winnipeg, Man.
Sarnia Bridge Co., Ltd., Sarnia, Ont.
Saskatchewan Bridge & Iron Co., Ltd., Moose Jaw, Sask.
Steel & Radiation, Ltd., Toronto, Ont.
St. Lawrence Bridge Co., Ltd., Montreal, Que.
Stratford Bridge & Iron Works Co., Stratford, Ont.
Structural Steel Co., Ltd., Montreal, Que.
Westminster Ironworks, New Westminster, B.C.

GLASS.—Glass is a silicate of soda or potash combined with an alkaline earth, or some other basic material. There are various kinds of glass, chief of which are window glass, made of silicate of soda and lime; Bohemian glass, of silicate of potash and lime; flint glass or crystal, of silicate of potash and lead. Window glass may be crown, sheet, or plate. The first is blown out into a disc, the second is blown into a cylinder, which is then cut open, and the third is cast on a table. Venice and Bohemia are especially noted for their coloured glass, and Germany is a great manufacturer of bottles. The chief exporting countries are Belgium, Austria-Hungary, and Germany. The United States is a large producer, but does not supply enough for home consumption. **(See also PLATE GLASS.)**

GLASS, Art & Prismatic.

Bogardus, Wickens, Ltd., Vancouver, B.C.
Consolidated Plate Glass Co. of Canada, Ltd., Toronto, Ont.
Hamilton Mirror Plate Co., Hamilton, Ont.
Hobbs Mfg. Co., Ltd., The, London, Ont.
Imperial Glass Works, Toronto, Ont.
Luxfer Prism Co., Ltd., The, Toronto, Ont.
Lyon, N. T., Glass Co., Ltd., Toronto, Ont.
Maritime Art Glass Works, Ltd., St. John, N.B.
O'Shea, J. P., & Co., Montreal, Que.
Pilkington Bros., Ltd., Montreal, Que.
Reardon, Frank, Halifax, N.S.
Roche, David, Halifax, N.S.
Sharpe, C. A., Montreal, Que.
Toronto Plate Glass Importing Co., Ltd.. Toronto, Ont.

GLASS, Bevelled and Silvered.

Allward-McCormick Glass Co., Ltd., Winnipeg, Man.
Bogardus, Wickens, Ltd., Vancouver, B.C.
Dominion Stained Glass Co., Toronto, Ont.
Imperial Glass Works, Toronto, Ont.
Lyon, N. T., Glass Co., Ltd., Toronto, Ont.
Maritime Art Glass Works, Ltd., St. John, N.B.
Montreal Paint & Glass Co., Ltd., Montreal.
Murray & Gregory, Ltd., St. John, N.B.
O'Shea, J. P., & Co., Montreal, Que.
Pilkington Bros., Ltd., Montreal, Que.
Prairie Glass Co., Ltd., The, Winnipeg, Man.
Queen City Glass Co., Ltd., Toronto, Ont.
Ramsay, Frank A., & Co., Montreal, Que.
Sharpe, C. A., Montreal, Que.
Roche, David, Halifax, N.S.
Toronto Plate Glass Importing Co., Ltd.. Toronto, Ont.
Western Mfg. Co., Ltd., The, Regina, Sask.
Winnipeg Paint & Glass Co., Ltd., Winnipeg, Man.
Woodcrafts, Ltd., Calgary, Alta.

GLASS, Chipped.

Dominion Stained Glass Co., Toronto, Ont.
Hobbs Mfg. Co., Ltd., The, London, Ont.
Imperial Glass Works, Toronto, Ont.
Pilkington Bros., Ltd., Montreal, Que.
Roche, David, Halifax, N.S.
Winnipeg Paint & Glass Co., Ltd., Winnipeg, Man.

GLASS, Embossed.

Dominion Stained Glass Co., Toronto, Ont.
Hobbs Mfg. Co., Ltd., The, London, Ont.
Imperial Glass Works, Toronto, Ont.
Roche, David, Halifax, N.S.
Toronto Plate Glass Importing Co., Ltd.. Toronto, Ont.
Winnipeg Paint & Glass Co., Ltd., Winnipeg, Man.

GLASS, Ground.

Hobbs Mfg. Co., Ltd., The, London, Ont.
Imperial Glass Works, Toronto, Ont.
Pilkington Bros., Ltd., Montreal, Que.
Roche, David, Halifax, N.S.

GLASS, Leaded.

Allward-McCormick Glass Co., Ltd., Winnipeg, Man.
Bogardus, Wickens, Ltd., Vancouver, B.C.
Canada Glass Mantels & Tiles, Ltd., Toronto.
Hobbs Mfg. Co., Ltd., The, London, Ont.
Hope, Henry & Sons, Ltd., Toronto, Ont.
Imperial Glass Works, Toronto, Ont.
McCausland, Robert, Ltd., Toronto, Ont.
O'Shea, J. P., & Co., Montreal, Que.
Pilkington Bros., Ltd., Montreal, Que.
Queen City Glass Co., Ltd., Toronto, Ont.
Ramsay, Frank A., & Co., Montreal, Que.
Roche, David, Halifax, N.S.
Toronto Plate Glass Importing Co., Ltd.. Toronto, Ont.
Winnipeg Paint & Glass Co., Ltd., Winnipeg, Man.

GLASS, Plate.

Bogardus, Wickens, Ltd., Vancouver, B.C.
Canada Glass Mantels & Tiles, Ltd., Toronto.
Hamilton Mirror Plate Co., Hamilton, Ont.
Hobbs Mfg. Co., Ltd., The, London, Ont.
Imperial Glass Works, Toronto, Ont.
O'Shea, J. P., & Co., Montreal, Que.
Pilkington Bros., Ltd., Montreal, Que.
Prairie Glass Co., Ltd., The, Winnipeg, Man.
Ramsay, Frank A., & Co., Montreal, Que.
Toronto Plate Glass Importing Co., Ltd.. Toronto, Ont.
Woodcrafts, Ltd., Calgary, Alta.

GLASS, Sand Cut and Enameled.

Hobbs Mfg. Co., Ltd., The, London, Ont.
Imperial Glass Works, Toronto, Ont.
Maritime Art Glass Works, Ltd., St. John, N.B.
Pilkington Bros., Ltd., Montreal, Que.
Toronto Plate Glass Importing Co., Ltd.. Toronto, Ont.
Winnipeg Paint & Glass Co., Ltd., Winnipeg, Man.

GLASS, Stained.

Allward-McCormick Glass Co., Ltd., Winnipeg, Man.
Bogardus, Wickens, Ltd., Vancouver, B.C.
Dominion Stained Glass Co., Toronto, Ont.
Lyon, N. T., Glass Co., Ltd., Toronto, Ont.
Jefferson Glass Co., Ltd., Montreal, Que.
Maritime Art Glass Works, Ltd., St. John, N.B.
Pilkington Bros., Ltd., Montreal, Que.
Ramsay, Frank A., & Co., Montreal, Que.
Toronto Plate Glass Importing Co., Ltd.. Toronto, Ont.

GLASS TOPS, Desks and Counter.

Toronto Plate Glass Importing Co., Ltd.. Toronto, Ont.

GLASS, Window.

Hobbs Mfg. Co., Ltd., The, London, Ont.
Pilkington Bros., Ltd., Montreal, Que.
Ramsay, Frank A., & Co., Montreal, Que.
Toronto Plate Glass and Importing Co., Ltd., Toronto, Ont.

GLASSWARE, Cut.

Gowans-Kent & Co., Ltd., Toronto, Ont.
Gowans-Kent Western, Ltd., Winnipeg, Man.
Gundy-Clapperton Co., Ltd., Toronto, Ont.
Ottawa Cut Glass Co., Ltd., Ottawa, Ont.
Phillips, Geo. & Co., Ltd., Montreal, Que.
Roden Bros., Ltd., Toronto, Ont.

GLASSWARE, Flint, Amber & Green.

Dominion Glass Co., Ltd., Montreal, Que., Toronto, Ont., and Wallaceburg, Ont.

GLAUBER'S SALTS, nitrate of soda, which occurs in many salt lakes and mineral springs, and is largely manufactured from common salt and sulphuric acid. It is employed in the manufacture of glass, in dyeing, for the production of carbonate of soda, &c., as well as in medicine. Great Britain holds the first rank as manufacturere of salts of soda. **(See SODA.)**

GLOBES, Lantern.

Atlas Glass Works, Ltd., Montreal, Que.
Dominion Glass Co., Ltd., Montreal, Que.,
Jefferson Glass Co., Ltd., Toronto, Ont.

GLOBES, School.

Globe Furniture Co., Ltd., The, Waterloo, Ont.

GLOVES.—The manufacture of kid gloves flourishes most in France (Paris and Grenoble), though considerable quantities are also made in Vienna, Belgium, Germany, and other countries. Lamb and sheep skins are made into gloves of an inferior quality. Calf and dog skins serve for stronger gloves. Germany, England, and Switzerland produce gloves of cotton, wool, and silk. Worcester, Yeovil, Ludlow, and London are great centres of the industries.

GLOVES, Asbestos.

Canadian Asbestos Co., Montreal, Que.

GLOVES, Canvas and Leather Faced.

Carhartt, Hamilton, Mfr., Ltd., Toronto, Ont.
Peabody's Sales Corporation, Ltd., Walkerville, Ont.
Smart-Woods Ltd., Ottawa, Ont.
Storey, W. H., & Son, Ltd., Acton, Ont.

GLOVES, Fur.

Berlin Glove & Gauntlet Co., Berlin, Ont.
Brereton & Steward, Toronto, Ont.
Brodey, Draimin Fur Co., Toronto, Ont.
Coristine, Jas. & Co., Ltd., Montreal, Que.
Gnaedinger, L., Son & Co., Montreal, Que.
Magee's, D., Sons, Ltd., St. John, N.B.
Redmond Co., Ltd., The, Montreal, Que.
Sandham & Thurston, Toronto, Ont.
Sovereen Mitt, Glove & Robe Co., Ltd., The, Delhi, Ont.

GLOVES, Husking. Cotton.)

Peabody's Sales Corporation, Ltd., Walkerville, Ont.
Standard Mfg. Co., Rock Island, Que.

GLOVES, Leather and Kid.

Acme Glove Works, Ltd., Montreal, Que.

Arnold, H. T., & Sons, Georgetown, Ont.
Ayer, D. J., & Son, Lennoxville, Que.
Balcer Glove Mfg. Co., Three Rivers, Que.
Clarke, A. R., & Co., Ltd., Brandon, Man.
Craig, Cowan Co., Ltd., The, Toronto, Ont.
Delhi Mfg. Co., The, Delhi, Ont.
Durham Glove Co., Ltd., Bowmanville, Ont.
Eagle Leather Works, Montreal, Que.
Ena Gloves, Ltd., Montreal, Que.
Frost & Donald, Dundas, Ont.
Galibert, F., Montreal, Que.
Halls, Ltd., Brockville, Ont.
Hudson Bay Knitting Co., Montreal, Que.
Huron Glove Co., Ltd., The, Indian Lorette, Que.
Imperial Glove Co., The, Hamilton, Ont.
Lalibert, J. B., Quebec, Que.
Leloup, Alfred, Quebec, Que.
MacKenzie, Ltd., Ottawa, Ont.
Northland Knitting Co., Ltd., Winnipeg, Man.
Quebec Glove & Leather Mfg. Co., Quebec, Que.
Ross, Henry, Indian Lorette, Que.
Ryan, The Robt., Co., Reg., Three Rivers, Que.
Sovereen Mitt, Glove & Robe Co., Ltd., The, Delhi, Ont.
St. Lawrence Glove Works, Quebec, Que.
Storey, W. H., & Son, Ltd., Acton, Ont.
Waterloo Glove Mfg. Co., Waterloo, Ont.

GLOVES AND MITTENS, Knitted.

Elias A. Brubacher, Baden, Ont.
Berlin Robe & Clothing Co., Berlin, Ont.
Durham Glove Works, Bowmanville, Ont.
Bird Woolen Co., Bracebridge, Ont.
Excelsior Knitting Mills, Brussels, Ont.
Sovereen Mitt, Glove & Robe Co., Delhi, Ont.
Newlands & Co., Ltd., Galt, Ont.
Joseph Beaumont, Glen Williams, Ont.
Royal Knitting Co., Guelph, Ont.
Kingston Hosiery Co., Kingston, Ont.
Page-Le Boeuff Co., Ltd., Ogibuia, Ont.
T. A. Code, Perth, Ont.
Russel Mfg. Co., Russel, Ont.
Avon Hosiery Co., Stratford, Ont.
R. M. Ballantyne, Ltd., Stratford, Ont.
Williams-Trow Knitting Co., Stratford, Ont.
R. G. Long & Co., Ltd., Toronto, Ont.
Acme Glove Works, Marieville, Que.
Garayt Knitting Co., Montreal, Que.
Hodgson, Sumner & Co., Montreal, Que.
Hudson Bay Knitting Co., Montreal, Que.

GLOVES, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.

GLOVES, Woollen.

Avon Hosiery Co., Stratford, Ont.
Ballantyne, R. M., Ltd., Stratford, Ont.
Wood, J. T., Brussels, Ont.

GLUCOSE.—Dextrose or grape-sugar, the most important of the glucoses, is produced by the action of sulphuric acid on maize, potatoes, and other starchy matter. It is now extensively employed in the manufacture of beer and in improving poor wines. Glucose is exported in a solid or liquid state from Germany, Belgium, and the United States, &c.

GLUCOSE.

Caanda Starch Co., Ltd., The, Brantford, Ont., and Montreal, Que.

GLUE, an impure gelatine, which is contained in almost all animal substances. The best is made from skins, and the refuse of tanneries is used up in its manufacture. Bone glue, a by-product obtained in the manufacture of animal charcoal, is inferior. Gelatine is a carefully made glue from selected portions of the ox. **(See also ISINGLASS.)**

GLUE.

Berlin Glue Works, The, Berlin, Ont.
Canada Glue Co., Ltd., Brantford, Ont.
Canadian Linderman Co., Ltd., Woodstock, Ont.
Carter's Ink Co., Montreal, Que.
Fox, T. M., Montreal, Que.
Gilmour Bros. & Co., Montreal, Que.
Harris, W., & Co., Toronto, Ont.
Maritime Fish Corporation, Ltd., Montreal, Que.
Marquis F., Canac, Quebec, Que.
Masse Industrial Co., Ltd., The, Windsor, Ont.
Mount Royal Color & Varnish Co., Ltd., The, Montreal, Que.
Russia Cement Co., St. John, N.B.

GLUE, Liquid (Fish.)

Maritime Fish Corporation, Ltd., Montreal, Que.
Masse Industrial Co., The, Windsor, Ont.
Reliance Ink Co., Ltd., Winnipeg, Man.

GLUTTON. (See WOLVERINE.)

GLYCERINE, a sweet colourless syrup which is an ingredient of fats, and is obtained as a by-product in soap and candle works. It is applied to many purposes—in medicine, in perfumery, in improving wines, in calico-printing, and the preparation of leather. Large quantities are required for making nitro-glycerine, dynamite, and other explosives.

GLYCERINE.

Lever Bros., Ltd., Toronto, Ont.
Marx & Rawolle of Canada, Ltd., Montreal.
Morton, David & Sons, Ltd., Hamilton, Ont.
Pugsley, Dingman & Co., Ltd., Toronto, Ont.
Taylor, John & Co., Ltd., Toronto, Ont.

GOA POWDER, a powder found in the wood of Andira araroba, a native of South America. Chrysarobine is a drug extracted from the powder.

GOATS.—The domestic goat is kept in all European countries, particularly in mountainous regions, to which they are well suited. The milk is rich, and cheese is made from it. The skins are tanned, and, when sumach is used, become morocco leather. The horns supply material for knife-handles and turned articles. The Angora goat, a native of Angora in Asia Minor, has been introduced into Europe, North America, Australia, and Cape Colony. Its white, soft, and silky hair is of great value for shawls and other articles. The Kashmir goat is almost equally valuable.

GO-CARTS.

Canadian Furniture Mfrs., Ltd., Woodstock, Ont.
Port Elgin Go-Cart Co., Port Elgin, Ont.

GO-CARTS, Collapsible.

Gendron Mfg. Co., Ltd., Toronto, Ont.
Lloyd & Sons, Ltd., Trenton, Ont.

GOLD is one of the most widely distributed of metals. It is found in all the continents and in almost every country. It belongs to every geological period, though it occurs more abundantly in certain systems and is especially frequent in volcanic districts. Most of the gold obtained is native, either embedded in rock, especially in quartz veins, or in alluvial deposits (placers) from which the ore is extracted by washing, while the solid rock is first crushed and stamped into powder. From "free-milling" ores the metal can be separated by mercury, which forms an amalgam with the gold and is afterwards removed by heat. The chlorination process, in which gold chloride is formed by the application of chlorine gas, is still in use, but the cyanide process, in which the gold is dissolved by cyanide of potassium or sodium, has nearly superseded it. In shallow placers gold is often washed out by hand washing or with very simple apparatus, but a large proportion of the metal is then lost—in some cases as much as 50 per cent.; as however, no capital is required, this process can be adopted by poor miners, working singly or in small parties. In these diluvial deposits large nuggets are sometimes found. Gold is very heavy (sp. grav. 19.3) and is extremely malleable and ductile. Being very valuable, it is much used in jewellery, plate, and ornaments, alloyed with copper, silver, iron, etc., to give it hardness and vary the color. For decorative purposes it is employed in the forms of gold leaf and gold wire. A grain of gold is usually beaten out to an area of 56 sq. inches, when it becomes so thin that a greenish light can be seen through it. The leaves thus made are laid on picture frames and other decorative articles. Wire is used in needle work, and 15 grains of gold are drawn out to a length of more than 2,000 yards. The most important use of gold is as a medium of exchange, and about a fourth of the metal obtained is absorbed by the mints of the world. Its high value compared to its volume and weight render it particularly suitable for this purpose, and now most of the civilized countries of the world have a good standard. But it is only in recent times that gold has gained its present pre-eminence, though gold coins were struck in very early ages. In England gold was first coined in 1257, but gold and silver coins were equally legal tender till 1774, and it was not till 1816 that silver as a legal tender was limited to 40 shillings. At the reformation of the coinage in 1774, it was enacted that a pound weight of gold should be coined into forty-four guineas and a half, which would make the value of an ounce of standard gold (22 carats fine) £3, 17s. 10½d., but owing to the loss of interest while the gold lay in the mint, the price was usually £3, 17s. 9d. From this price the value of bullion cannot vary much, while pure gold is worth £4, 4s. 11½d., being the sum which contains an ounce of fine gold.

The world's production of gold in 1912 (the last year for which there are complete returns) was $466,136,110. The principal countries contributing to this production were:—

British South Africa	$211,850,600
United States	93,450,500
Australia, New Zealand	54,509,400
Mexico	24,500,000
Russia	22,199,000
Canada	12,648,800
British India	11,055,700
Japan	4,469,000

The principal gold consuming countries were as follows:—

Country,	Monetary Unit.	No. of Monetary Units.
British Empire,		
Great Britain	Pound, sterling, ($4.86 2-3 cents)	162,687,479
Australasia,	" "	46,450,291
Canada,	Dollar ($1.00)	1,477,710
France,	Franc (19.3 cents)	43,655,764
Germany,	Mark (23.8 cents)	32,481,248
United States	Dollar ($1.00)	17,498,523
Turkey	Piaster (4.4 cents)	17,441,528
Japan	Yen, (49.8 cents)	14,720,880
Netherlands,	Florin, (40.2 cents)	14,411,778
Austria-Hungary	Crown (20.3 cents)	4,993,229
Switzerland,	Franc (19.3 cents)	2,123,000
Denmark	Kroner (26.8 cents)	996,858
Venezuela	Bolivar (19.3 cents)	579,000
Italy	Lire (19.3 cents)	448,428
Peru	Libra (4.86 2-3 cts)	320,356
Bulgaria	Leva	241,443
Brazil	Milreis (54.6 cents)	53,268

For half a century Canada has been producing gold. The discovery of important placer deposits in British Columbia followed a few years after the development of similar deposits in California. In Nova Scotia, gold mining is a very old industry, but at present is not a very important one. Yukon startled the world some years ago when the richness of some of the creeks was discovered. The Yukon district is still a considerable producer. In Ontario gold mining has been carried on for many years with small results. But during recent years, due to the discovery of Porcupine, this province has become a considerable producer of the metal and the output is still going up rapidly.

GOLD-BEATERS' SKIN is prepared from the external membrane of the cæcum of the ox. Gold-beaters lay the gold between sheets of this skin and then beat it out. The skin is also used as a plaster.

GOLD MINES (Ores.)

Bendigo Gold Mining Co., Ltd., New Glasgow, N.S.
Canadian Exploration Co., Naughton, Ont.
Canadian Homestake Gold Mining Co., Ltd.
Caribou Gold Mining Co., Caribou, N.S.
Cartwright Gold Fields, Ltd., Toronto, Ont.
Cordova Mines, Ltd., Cordova Mines, Ont.
Dome Lake Mines, Ltd., Toronto, Ont.
Dome Mines Co., Ltd., New York, N.Y.
Dominion Leasing Co., Tangier, Halifax Co. N.S.
Eldorado Dome Quartz Mining Co., Dawson, Y.T.
Gladwin Gold Mining Co., Truro, Colchester Co., N.S.
Goldenville Mining Co., Goldenville, Guysboro' Co., N.S.
Hedley Gold Mining Co., Hedley, B.C.
Jewel Denoro Mines, Ltd., Greenwood, B.C.
Kootenay Gold Mines, Ltd., Nelson, B.C.
Kenora-Cobalt, Development & Reduction Co., Detroit.
La Mine d'Or, Huronia, Montreal, Que.
Lone Star, Ltd., Dawson, Y.T.
Lucky Cross Mines of Swastika, Ltd., Swastika, Ont.
Loon Brook Gold Mining Co., Ltd., Montague, N.S.
Mines Leasing & Development Co., Toronto,
Mother Lode Sheep Creek Mining Co., Sheep Creek, B.C.
McIntyre Porcupine Mines, Ltd., South Porcupine, Ont.
Moosehead Reduction Co., Moosehead, Halifax Co., N.S.
Northern Gold Reefs, Ltd., Toronto, Ont.
Olympia Gold Mining Co., Ltd., St. Paul, Minn.
Penniac Reef Gold Mines, Ltd., Winnipeg, Man.
Petpeswick Mining Co., West Petpeswick, N.S.

Porcupine Crown Mines, Ltd., Montreal, Que.
Queen Mines, Incorporated, Salmo, B.C.
Stillwater Mining Co., Moose River, Halifax Co., N.S.
Stormont Gold Mining Co., Goldboro, N.S.
Swastike Mining Co., Ltd., Toronto, Ont.
Switzer Mining Co., Pleasantfield, N.S.
The Hollinger Gold Mines, Ltd., Toronto, Ont.
Three Nations Gold Mining Co.
Tough Oakes Gold Mines, Haileybury, Ont.
Touquoy Gold Mining Co., Moose River, N.S.
Vipond Porcupine Mines Co., Ltd., Schumacher, Ont.
Ymir Wilcox Development Co., Ltd., Ymir, B.C.

GOLD MINES, (Alluvial.)

Atlas Mining Co., Ltd., Whitehorse, Yukon.
Atlin Consolidated Mining Co., Ltd., Atlin, B.C.
Birch Creek Mining Co., Birch Creek, Atlin, B.C.
Boulder Creek Mining Co., Telegraph Creek, Atlin, B.C.
Boyle Concessions, Ltd., Dawson, Y.T.
Delta Gold Mining Co., Atlin, B.C.
Fountain Creek Mining Co., Barkerville, Cariboo, B.C.
Granville Mining Co., Ltd., (A.N.C. Treadgold), Dawson, Y.T.
Horsefly Gold Dredge & Mining Co., Horsefly, Quesnel, B.C.
Independence Mining Co., Harper's Camp, Quesnel, B.C.
Lightning Creek Gold, Gravels & Drainage Co., Cottonwood, Caribou, B.C.
Moorehead Mining Co., Quesnel Forks, Quesnel, B.C.
North Columbia Gold Mining Co., Atlin, B.C.
Otter Creek Development Co., Atlin, B.C.
Pine Creek Power Co., Ltd., Atlin, B.C.
Pine Creek Flume Co., Discovery, B.C.
Pioneer Mines, Ltd., Revelstoke, B.C.
Quesnelle Hydraulic Gold Mining Co., Horsefly, Quesnel, B.C.
Societe Miniere de la Colombie Britannique, Atlin, B.C.
Tulameen Gold and Platinum, Ltd., Similkameen, B.C.
Upper Otter Creek Mining Co., Atlin, B.C.
Wright Creek Mining Co., Atlin, B.C.
Venture Mining Co., Van Winkle, Cariboo, B.C.
Wolker's Fork Gold Dredging Co., Ltd., Dawson, Y.T.
Waverley Hydraulic Mining Co., Ltd., Barkerville, Cariboo, B.C.
West Canadian Deep Leads, Ltd., Barkerville, Cariboo, B.C.
Wormwald Creek Mining Co., Barkerville, Cariboo, B.C.
Wright Creek Mining Co., Atlin, B.C.
Yukon Gold Co., Dawson, Y.T.

GOLD.

Consolidated Mining & Smelting Co. of Canada, Ltd., Trail, B.C.

Dental.

Goldsmith Bros. Smelting & Refining Co., Ltd., Toronto, Ont.
National Refining Co., Ltd., Toronto, Ont.
Wilkinson, J. E., Co., Ltd., Toronto, Ont.

GOLD LEAF. (See GOLD.)

GOLD, Leaf or Foil.

Goldsmith Bros. Smelting & Refining Co., Ltd., Toronto, Ont.
National Refining Co., Ltd., Toronto, Ont.
Wilkinson, J. E., Co., Ltd., Toronto, Ont .

GOLDEN-SEAL ROOT, Orange Root, or Canadian Yellow Root. The root of Hydrastis Canadensis, which yields a brilliant yellow dye.

GOLD LACE, fabrics made of thread covered with wire. The wire is made of silver covered with a thin coating of gold, and the silver is very often alloyed with a much larger proportion of copper. The wire is rolled flat and wound round a silk thread so as to completely cover it. In the inferior qualities thin coatings of silver and gold are deposited by electricity on a copper wire, and the very commonest quality consists of Dutch metal over a cheap white alloy.

GOLDSMITHS.

Benedict-Proctor Mfg. Co., Ltd., Toronto, Ont.
Ellis, P. W., & Co., Ltd., Toronto, Ont.
Ferguson & Page, St. John, N.B.
Grondines, J., St. John, N.B.
Gurd, W. T. & Son, St. John, N.B.
Lees, Geo. H., & Co., Ltd., Hamilton, Ont.
Pearce, Henry, Montreal, Que.
Porte & Markle, Winnipeg, Man.
Wade Mfg. Co., Dundas, Ont.

GOLDEN SYRUP, a clear light-coloured treacle.

GOLF SUITS, Knitted.

Ballantyne, R. M., Ltd., Stratford, Ont.
Colonial Knitting Co., Ltd., Guelph, Ont.
Hewson Pure Wool Textiles, Ltd., Amherst, N.S.
Knit-to-Fit Mfg. Co., Montreal, Que.
Mitchell Woollen Co., Ltd., Mitchell, Ont.
Monarch Knitting Co., Ltd., Dunnville, Ont.
Penman's, Limited, Paris, Ont.
Scott Knitting Co., Toronto, Ont.
Turnbull, The C., Co., of Galt, Ltd., Galt, Ont.
Warren Brothers, Toronto, Ont.

GONGS.

Clark, C. O., & Brother, Montreal, Que.
Garth Company, The, Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

GOOSE.—The varieties of the common goose do not greatly differ. Pomeranian, Emden, and Toulouse geese are the most noted. Holland and Germany export large quantities as food, and the pates de foie gras of Strasbourg and Toulouse are well known. (See also **FEATHERS.**)

GRAIN BINDERS.

Frost & Wood Co., Ltd., The, Smiths Falls, Ont.
International Harvester Co. of Canada, Ltd., Hamilton, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Moody, The Matthew, & Sons, Co., Terrebonne, Que.

GRAIN LOADERS.

Bell, The Robt., Engine & Thresher Co., Ltd., Seaforth, Ont.
Stewart Sheaf Loader Co., Ltd., Winnipeg, Man.

GRAINS OF PARADISE, the seeds of a plant of the order Zingiberaceæ. They are used in veterinary medicine and in improving the flavour of inferior spirits. Another name for them is Malegueta or Guinea pepper, from the Pepper or Grain coast of West Africa. The name is also applied to the pungent seeds of other plants.

GRAM, a Hindu name for chick-peas, and also applied to other kinds of pulse.

GRANARIES, Portable (Metal.)

Canadian Corrugated Pipe Co., Ltd., Portage La Prairie, Man.
Canadian Metal Shelter Co., Winnipeg, Man.

Metallic Roofing Co. of Canada, Ltd., Winnipeg, Man.
Winnipeg Steel Granary & Culvert Co., Ltd., Winnipeg, Man.

GRANITE is an igneous rock composed in general of quartz, felspar, and mica. Its appearance differs according to the fineness or coarseness of the grain and the colour of the crystals it contains. The finer-grained granites are used for paving streets, those with larger crystals for building. For these purposes it is quarried in many countries, in Normandy and Brittany, Italy, Switzerland, Scotland, the United States, and Quebec. Porphyritic granite (Shap granite) containing large crystals of felspar, is especially handsome.

GRANITE BUILDING MATERIAL.

Argenteuil Granite Co., Ltd., Montreal, Que.
Atkinson Marble & Granite Co., Simcoe, Ont.
Brodie, Jas. & Son, Iberville, Que.
Colonial Granite Co., Ltd., New Glasgow, N.S.
Hamilton Granite Works, Ltd., Hamilton, Ont.
Hooper's Marble & Granite Co., Ltd., Winnipeg, Man.
Laurentian Granite Co., Ltd., The, Montreal,
McGrattan, H., & Sons, St. George, N.B.
McIntosh Granite Co., Ltd., Toronto, Ont.
Milne, Coutts & Co., Ltd., St. George, N.B.
Norcross Bros., Co., Ltd., Iberville, Que.
North Lanark Granite & Marble Quarries, Ltd., St. Catharines, Ont.
Norton, S. B., Beebe Junction, Que.
Patterson & Chandler, Vancouver, B.C.
Renfrew White Granite Co., Ltd., Ottawa, Ont.
St. Lawrence Granite & Marble Works, Montreal, Que.
Stanstead Granite Quarries Co., Ltd., Beebe, Que.
Tayte, Meating & Co., St. George, N.B.
Vancouver Granite Co., Ltd., Vancouver, B.C.
Western Stone Co., Ltd., Winnipeg, Man.

GRAPE. (See VINE, CURRANTS, RAISINS.)

GRAPE FRUIT. (See CHADDOCK.)

GRAPE SUGAR. (See GLUCOSE.)

GRAPHITE. (See BLACK LEAD.)

GRAPHITE.

Buckingham Graphite Co., Ltd., Buckingham, Que.
Bell Graphite Co., Ltd., Buckingham, Que.
Black Donald Graphite Co., Calabogie, Ont.
Canadian Graphite Co., Ltd., Montreal, Que.
Globe Refining Co., Ltd., Ottawa, Ont.
Graphite Ltd., Montreal, Que.
New York Graphite Co., Harcourt, Ont.
Quebec Graphite Co., Buckingham, Que.
Virginia Graphite Co., Ltd., Wilberforce, Ont.

GRASS CLOTH.—Cloth is made from several grasses, but the name is particularly given to cloth made of the fibres of Boehmeria nivea, Boehmeria tenacissima, and other varieties. These plants are of the nettle family, and the fibre is known as China grass, rhea, and ramine fibre. Sometimes the name China grass is used to denote the fibre B. nivea only. The plants are cultivated in the East and West Indies, the Cape, Mexico, &c. The Queensland grass cloth plant is another species of Nettle.

GRASS OILS, a general name for the volatile oils extracted from a variety of plants. Andropogon warancusa yields an oil which has a similar stimulating effect to cajeput oil; it grows on the Coromandel coast and in Bengal. A. nardus, cultivated in the East Indies and at the Cape, yields ginger-grass oil, which is very similar to geranium oil. Lemon grass or citronella oil is obtained from A. schœnanthus of the East Indies and Arabia, and is used for scenting soap. Turkish grass oil is extracted from A. pachnodes. Cyprus grass oil is obtained from the roots of Cyperus esculentus, a native of South Eurpoe, the Levant, and Africa.

GRATE BARS, Boiler.

Baird, H. C., Son & Co., Ltd., Parkhill, Ont.
Canada Iron Corporation, Ltd., Montreal, Que.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Corbet Foundry Co., The, Owen Sound, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Muskoka Foundry Co., Ltd., Bracebridge, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

GRATES and GRATE BASKETS.

Enterprise Foundry Co., The, Sackville, N.B.
Stewart, The James, Mfg. Co., Ltd., Woodstock, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.
Whittaker Stove Works, Windsor, Ont.

GRATES, Flat.

Gurney Foundry Co., Ltd., Toronto, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Leonard, E., & Sons, London, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Plessisville Foundry Co., Ltd., The, Plessisville, Que.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

GREASE, Axle.

Commercial Oil Co., Ltd., Hamilton, Ont.
Dominion Oil Co., Ltd., Hamilton, Ont.
McColl Bros. & Co., Toronto, Ont.
Metropolitan Oil Co., Toronto, Ont.
Sovereign Soaps & Chemicals, Ltd., Toronto,
Thorntons, Ltd., Brantford, Ont.

GREASE, Lubricating.

Beaver Oil Co., Montreal, Que.
British Columbia Refining Co., Ltd., Vancouver, B.C.
Campbell Lubricating Co., Hamilton, Ont.
Canadian Oil Companies, Ltd., Hamilton, Ont.
Commercial Oil Co., Ltd., Hamilton, Ont.
Crescent Oil Co., Ltd., The, Hamilton, Ont.
Crown Oil Refining Co., The, Hamilton, Ont.
Dominion Oil Co., Ltd., Hamilton, Ont.
Electric Boiler Compound Co., Ltd., Guelph, Ont.
McColl Bros. & Co., Toronto, Ont.
Metropolitan Oil Co., Toronto, Ont.
Ontario Lubricating Co., Ltd., The, Hamilton, Ont.
Sovereign Soaps & Chemicals, Ltd., Toronto.

GREASE, Soap.

Canada Glue Co., Ltd., Brantford, Ont.
Canadian Economic Lubricant Co., Ltd., Montreal, Que.
Harris, W., & Co., Toronto, Ont.
Imperial Packing Co., Ltd., Woodstock, N.B.
Marquis, F. Canac, Quebec, Que.
Metropolitan Oil Co., Toronto, Ont.
Thorntons, Ltd., Brantford, Ont.

GREASE, Cups.

Canadian Detroit Lubricator Co., Ltd., Walkerville, Ont.
Canadian Winkley Co., Ltd., Windsor, Ont.
Dodge Mfg. Co., Ltd., Toronto, Ont.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Penberthy Injector Co., Ltd., Windsor, Ont.
Peterborough Machine & Lubricating Co., Ltd., Peteroborugh, Ont.

GREBE, a genus of diving birds much sought after for their plumage, especially the Great Crested Grebe, which frequents the rivers and lakes of Europe. The Slavonian Grebe lives in the north of Europe and Siberia. An allied species is found in North America.

GREENGAGE, a fine-flavored green plum. It is cultivated in England, and large quantities are imported, chiefly from France.

GREENHEART, a hard, heavy timber, from a tree of the order Lauraceæ, which grows in Guiana. It is remarkably durable, and resists the attacks of insects, and therefore is much used in dock and harbor works.

GREEN SNAIL, the shell of Turbo olearius, which furnishes a mother-of-pearl. It is collected in the East Indies.

GRILLES, Wood.

Anglin, S., & Co., Kingston, Ont.
Beverley Wood Specialty Co., Ltd., Toronto,
Blonde Lumber & Mfg. Co., Ltd., Chatham, Ont.
Calgary Woodworkers, Ltd., Calgary, Alta.
Cushing Bros. Co., Ltd., Calgary, Alta.
Davidson, Jas., Ottawa, Ont.
Gignac, J. H., Ltd., Quebec, Que.
Kerr, J. & J., Co., Ltd., Petrolia, Ont.
Ottawa Stair Works, Ottawa, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Rhodes, Curry Co., Ltd., Amherst, N.S.
Rutherford, The Wm., Sons Co., Ltd., Montreal, Que.
Schultz Bros. Co., Ltd., The, Brantford, Ont.
Wilson Bros., Ltd., Collingwood, Ont.

GRILLE WORK, Metal.

Ahern Safe Co., Ltd., Montreal, Que.
Alberta Ornamental Iron Co., Ltd., Redcliff, Alta.
Beaver Brass Mfg. Co., Ltd., The, Toronto, Ont.
British Columbia Iron, Wire & Fence Co., Vancouver, B.C.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Cummings Brass, Iron & Wire Co., Ltd., Winnipeg, Man.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Hartley Iron & Wire Works, Vancouver, B.C.
Hutchison & Sticht, Montreal, Que.
Leduc & Fortin, Beauharnois, Que.
Major Mfg. Co., Ltd., The, Montreal, Que.
Meadows, Geo. B. Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Patterson & Heward, Toronto, Ont.
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
Shipway, Iron Bell & Wire Mfg. Co., Ltd., Toronto, Ont.
Taylor, J. & J., Ltd., Toronto, Ont.
Tuttle & Bailey Mfg. Co., Bridgeburg, Ont.
Westminster Iron Works, New Westminster, B.C.
Winnipeg Wire & Iron Works, Winnipeg, Man.

GRINDERS, Emery and Corundum.

Adamite & Wheel Mfg. Co., Hamilton, Ont.
Brantford Emery Wheel Co., Ltd., Brantford, Ont.
Buffalo Specialty Co., Bridgeburg, Ont.
Canadian Hart Wheels, Ltd., Hamilton, Ont.
Carborundum Company, Niagara Falls, Ont.
Dominion Abraisive Wheel Co., Ltd., New Toronto, Ont.
Norton Company, The, Chippewa, Ont.
Prescott Emery Wheel Co., Ltd., Prescott, Ont.

GRINDERS, Grain and Feed.

Austin Bros., Ltd., Halifax, N.S.
Beatty Bros., Ltd., Fergus, Ont.
Canadian Engines, Ltd., Dunnville, Ont.
Dain Mfg. Co., Ltd., Welland, Ont.
Fleurys, J., Sons, Aurora, Ont.
Gilson Mfg. Co., Ltd., Guelph, Ont.
Goldie & McCulloch Co., Ltd., The, Galt, Ont.
Goold, Shapley & Muir Co., Ltd., Brantford, Ont.
Greey, Wm., & J. G., Toronto, Ont.
Manitoba Engines, Ltd., Brandon, Man.
Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
Stratford Bridge & Iron Works, Co., Stratford, Ont.
Vessot, S. & Co., Joliette, Que.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.
Woodstock Wind Motor Co., Ltd., Woodstock, Ont.

GRINDERS, Knife.

Canada Machinery Corporation, Ltd., Galt, Ont.
Cowan & Co. of Galt., Ltd., Galt, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

GRINDERS, Tool and Planer Knife.

Adamite & Wheel Mfg. Co., Hamilton, Ont.
Banfield & Wheel Mfg. Co., Hamilton, Ont.
Canadian Hart Wheels, Ltd., Hamilton, Ont.
Fisher Electric & Mfg. Co., Ltd., Toronto, Ont.
Ford-Smith Machine Co., Hamilton, Ont.
Prescott Emery Wheel Co., Ltd., Prescott, Ont.
Stevens Co. of Galt, Ltd., The, Galt, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
Woodstock Wind Motor Co., Ltd., Woodstock, Ont.

GRINDERS, Wood Pulp.

Hamilton, Wm. Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Waterous Engine Works Co., Ltd., Brantford, Ont.

GRINDERS, Wood Pulp, Stone.

Canadian Pulp Mill Machinery Co., Ltd., Montreal
Miramichi Quary Co., Ltd., Quarryville, N.B.
McOuat, T., & Son, Lachute Mills, Que.

GRINDSTONES, circular blocks of sharp homogeneous sandstone. Artificial grindstones are made of fireclay, burnt hard, and of compositions of powdered sandstone, swamp iron ore, shellac, &c.

GRIND STONES, OIL and SCYTHE STONES

Brantford Emery Wheel Co., Ltd., Brantford, Ont.
Canadian Hart Wheels, Ltd., Hamilton, Ont.
Gilmour Bros. & Co., Montreal, Que.
Knowles, W. R. Co., Ltd., Clifton, N.B.
Miramichi Quarry Co., Ltd., Quarryville, N.B.
Norton Co., The, Chippewa, Ont.
Read Stone Co., The, Ltd., Sackville, N.S.
Richards-Wilcox Canadian Co., Ltd., London, Ont.

GROATS, oats stripped of their husks.

GROUND-NUTS, called also earth-nuts, and in the United States pea-nuts. The fruits of Arachis hypogea, which, formed in the air, are gradually forced into the ground and ripen 3 or 4 inches beneath the surface. The plant is cultivated in the tropical countries of Africa, and thrives in Southern Europe; also in India, the Southern States of North America, and in South America. The nuts are eaten in the countries where they grow. In Europe they are valued chiefly for the oil they contain, which is used as salad oil. The residual paste is sometimes used in the manufacture of chocolate, but chiefly as a food for cattle.

GUAIACUM, a genus of tropical American trees which yield lignum vitæ and a medicinal resin.

GUANO, the excrement of sea-fowl collected from the islands off the coasts of Peru and Chile, from some West Indian islands, the Kuria Muria islands, and elsewhere, for the purpose of manuring land. It owes its value to the salts of ammonia and phosphates it contains. Many of the deposits are now practically worked out.

GUARANA.—The Guarani Indians of South America make bread of the seeds of a climbing plant, and the Brazilians use them as cocoa. In the United States and Europe they are used in medicine.

GUARDS, Window and Machinery (Iron and Wire.)

Andrews Wire Works of Canada, Ltd., Watford, Ont.
Canada Wire & Iron Goods Co., Hamilton, Ont.
Dennis Wire & Iron Works, Ltd., London, Ont.
Greening, The B., Wire Co., Ltd., Hamilton, Ont.
Hartley Iron & Wire Works, Vancouver, B.C.
Hutchison & Stich, Montreal, Que.
Johnson, C. H., & Sons, Ltd., Montreal, Que.
Manitoba Anchor Wire Fence Co., Ltd., The, Winnipeg, Man.
Meadows, Geo. B. Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Munro Steel & Wire Works, Ltd., Winnipeg, Man.
Shipway Iron Bell & Wire Mfg. Co., Ltd., Toronto, Ont.
Tuttle & Bailey Mfg. Co., Bridgeburg, Ont.
Watson, John, & Son, of Montreal. Ltd., Montreal, Que.
Westminster Iron Works, New Westminster B.C.

GUAVA, or White Guava, is grown in the East and West Indies, and produces excellent jelly. The Red Guava is very acid. The China Guava also makes good preserve.

GUINEA CORN, the seeds of Sorghum vulgare. **(See DURRA.)** The name is also applied to the seeds of Penicillaria spiccata.

GUM.—The gum tree is not a native of Canada, and the wood used in Canadian industries is all imported from the United States. The wood is moderately soft, and fairly tough. It has a fine uniform grain, and takes a good polish. In commerce it is sometimes called "Satin Walnut." It is used in furniture manufacturing, and in the body of work for vehicles. It can be obtained in greater clear widths than most native woods, is cheap, easily worked, and easily bent. **(See WOOD.)**

GUM, Chewing.

Auto Sales Co., Ltd., Toronto, Ont.
Bradshaws, Ltd., Toronto, Ont.
Canadian Chewing Gum Co., Ltd., Toronto.
Canadian Chicle Co., Ltd., Peterborough, Ont.
National Licorice Co., Montreal, Que.
O-Pee-Chee Gum Co., Ltd., The, London, Ont.
Wampole, Henry K., & Co., Ltd., Perth, Ont.
Wrigley, Wm., Jr., Co., Ltd., Toronto, Ont.

GUMS.—This name is commonly applied to a variety of substances which exude from the bark or leaves of trees and plants, such as gum-resins and resins proper. True gums are of two kinds—gum arabic and gum tragacanth. The best, pure white, comes from Kordolan, while the most highly colored is that of Senegal. Gum arabic dissolves readily in water, whereas gum tragacanth absorbs a large quantity of water and swells, but is not properly dissolved. It is the sap of various species of Astragalus, and is exported chiefly from Smyrna. Fine gum arabic is expensive and is rarely found except in the chemist's shop. The commoner kinds are used in the arts. Tragacanth is also used in calico-printing and to form emulsions. It is frequently adulterated with inferior kinds of gum. Gum-resins and resins will be found under their individual names.

GUN COTTON, a powerful explosive made by soaking cotton-waste in a mixture of one part by weight of nitric acid to three of sulphuric acid.

GUNNY.—Gunny cloth and bags are coarse jute wares made in Bengal and exported for the purpose of packing cotton, grain, salt, &c.

GUNPOWDER.—Gunpowder is composed of 75 per cent. by weight of saltpetre, 15 of charcoal, and 10 of sulphur, mixed together into a wet cake. This cake is broken up and formed into granules by a special machine, and glazed by friction. Mining powder, which should suddenly give out a large volume of gas and be inexpensive, is composed of very large grains and contains rather less saltpetre and more sulphur. Powder for sporting guns, on the other hand, is fine-grained. Various powders are made for military rifles and machine guns. For cannon the powder used to be moulded into cubes and was called pebble powder, but now prismatic powder, the grains of which are hexagonal prisms, 1 inch by 1¾ inches, with a hole through the middle, has superseded it. Brown powder, consisting of 79 parts of saltpetre, 18 of charcoal, and 3 of sulphur, is also made into prisms. One of the latest sporting powders is the "bulldog," containing 85 per cent. of saltpetre, 14 of charcoal, and one of sulphur. E. C. powder (Explosives Company) is granulated gun-cotton, and the older Schultze powder is finely divided cellulose saturated with nitric and sulphuric acids. With these the same velocity is obtained from a much smaller charge, and they are nearly smokeless.

GURJUN OIL, or Wood Oil, is obtained from nuts that grow in India. It is used medicinally for external application, and in the manufacture of varnishes. Copaiva balsam is often adulterated with it.

GUTTA-PERCHA, the inspissated sap of certain trees of the order Sapotaceæ. The juice oozes out of cuts made in the bark, and attempts have been made to extract it from the leaves and twigs. True gutta-percha is found only in Sumatra, Borneo, and the Malay Peninsula, within a distance of 5 degrees on either side of the equator. It differs from caoutchouc in becoming soft and plastic in hot water or air, when it can be moulded into any form, whereas caoutchouc retains its elasticity and tension. The high non-conductivity of gutta-percha has led to its use in coating telegraph wires, especially for cables, and in this way probably two-thirds of the gutta-percha collected is employed. It is also made into funnels, bottles, syringes, stoppers, and many other small articles. When deprived of its resin it is the best material for golf balls, being exceedingly tough and elastic. Many substitutes for gutta-percha have been tested, but none has been found satisfactory, except Balata, which possesses the peculiar properties of gutta in a less degree. More than 2,500 tons of gutta-percha are exported annually from Singapore. Balata is the juice of the Bullet tree, which grows in Jamaica, Trinidad, Venezuela, and the Guianas. The chief exports are from British and Dutch Guiana. **(See also INDIA-RUBBER.)**

GYPSUM. (See PLASTER OF PARIS.)

GYPSUM, Crude and Pure White.

GYPSUM, Crushed.

Alabastine Co., Paris, Ltd., Paris, Ont.
Crown Gypsum Co., Ltd., Lythmore, Ont.
Great Northern Mining & Railway Co., Ltd., Eastern Harbor, N.S.
Manitoba Gypsum Co., Ltd., Winnipeg, Man.
Windsor Plaster Co., Ltd., Windsor, N.S.

H

HADDOCK, a fish of the cod genus which is abundant on the northern coasts of Europe and America. **(See COD and FISHERIES.)**

HAIR.—Many kinds of hair are dealt with in international trade. Firstly, there is human hair, which is worked up into wigs, switches, &c. The hair is obtained from France, Austria, Germany, and other countries, and is manufactured in France and Germany. A large quantity of human hair is exported from China, but it is of poor quality. The hair from the manes and tails of horses is woven into carpets and cloth for upholstery. The best is the hair combed from living horses. Short hair is used for stuffing furniture, and is often mixed with cow and pig hair. Cow hair is also used to bind plaster and in the manufacture of felt. Hair is exported from Russia, Uruguay, Argentina, Germany, &c. Camels' hair is woven in the East into material for clothing, carpets, &c., and is imported into Europe and America for weaving into carpets and mixing with wool. **(See CAMELS' HAIR).** The under hair of the Angora and Kashmir or Tibetan goat makes excellent shawls, and is imported in considerable quantities into Europe. **(See MOHAIR.)** The hair of other goats is also utilised.

HAIR, Plastering.

Barrie Tanning Co., Ltd., The, Barrie, Ont.
Bonner Leather Co., Montreal, Que.
Lamb, J. J., Omemee, Ont.
Marquis, F. Canac, Quebec, Que.
Stone, William, Sons, Ltd., Woodstock, Ont.

HALIBUT.—Halibut is the largest of flat fish, sometimes being the weight of 500 pounds. It is found on the northern coasts of Europe and North America, where it is particularly plentiful off the northwest coast of British Columbia. The halibut fisheries of British Columbia is the most important. **(See FISH.)**

HALL RACKS.

Canada Furniture Mfrs., Lt., Woodstock, Ont.
Chesley Furniture Co., Ltd., Chesley, Ont.
Hibner Furniture Co., Ltd., Berlin, Ont.
Lippert Furniture Co., Ltd., Berlin, Ont.
Markdale Furniture Co., Ltd., Markdale, Ont.
McLagan, The George, Furniture Co., Ltd., Stratford, Ont.
Meaford Mfg. Co., Ltd., Meaford, Ont.
North American Furniture Co., Ltd., Owen Sound, Ont.
Wunder Furniture Mfg. Co., Ltd., Berlin, Ont.

HALTERS.

Adams Bros. Harness Mfg. Co., Ltd., Toronto, Ont.
Ackerman, B. F., Son & Co., Peterborough, Ont.
Edwards, J. E., & Sons, Toronto, Ont.
Gananoque Harness Works, Ltd., Gananoque, Ont.
General Leather Goods Co., Ltd., Toronto, Ont.
Great West Saddlery Co., Ltd., The, Winnipeg, Man.
Griffith, G. L., & Son, Stratford, Ont.
Heney Carriage & Harness Co., Ltd., Montreal
Lamontagne, Ltd., Montreal, Que.
Rudd, Geo. A., & Co., Ltd., Toronto, Ont.
Winnipeg Training Co., Ltd., Winnipeg, Man.

HAMES.

Martin Mfg. Co., The, Whitby, Ont.
McFarlane, Neill Mfg. Co., Ltd., The, St. Mary's, N.B.
McKinnon Dash Co., St. Catharines, Ont.
Skinner Co., Ltd., The, Gananoque, Ont.
Wilson & Cousins, Toronto, Ont.

HAMMERS.

Canada Machinery Corporation, Ltd., Galt, Ont.
Fowler, Josiah, Co., Ltd., St. John, N.B.
Hills, Allan, Edge Tool Co., Ltd., Galt, Ont.
Pink, Thomas, Pembroke, Ont.
Smart, The James. Mfg. Co., Ltd., Brockville, Ont.
Whitman & Barnes Mfg. Co., St. Catharines, Ont.

HAMMERS, Drop, Steam Power and Trip.

Banfield, W. H., & Sons, Toronto, Ont.
Bertram, John. & Sons, Ltd., Dundas, Ont.
Brandon Machine & Implement Works, Brandon, Man.
Calgary Iron Works, Ltd., The, Calgary, Alta.
Canada Machinery Corporation, Ltd., Galt, Ont.
Canadian Billings & Spencer, Ltd., Welland, Ont.
Canadian Ingersoll Rand Co., Ltd., Montreal,
Fairbanks, E. & T., & Co., Ltd., Sherbrooke, Que.

House, Julius F., Toronto, Ont.
Jardine, A. B., & Co., Hespeler, Ont.
Matheson, I., & Co., New Glasgow, N.S.
McDougall, The John, Caledonian Iron Works, Co., Ltd., Montreal, Que.
Miller Bros. & Sons, Ltd., Montreal, Que.
Plessisville Foundry Co., Ltd., The, Plessisville, Que.

HAMMERS, Lumbermen's Log.

Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Superior Mfg. Co., Ltd., Toronto, Ont.

HAMMOCKS.

Dominion Hammock Mfg. Co., Ltd., Dunnville, Ont.
Eastern Lumber Mills, Darchester, N.B.
Galt Robe Co., The, Galt, Ont.
Grant, Holden & Graham, Ottawa, Ont.
Oxford Worsted Co., Ltd., Amherst, N.S.
Shurly & Derrett, Ltd., Toronto, Ont.
Smart-Woods, Ltd., Ottawa, Ont.

HAMS. (See HOGS.)

HAMS. (See Bacon.)

HANDLES, Adze, Hatchet and Hammer.

Canadian Handle Mfg. Co., Ltd., London, Ont.
Danville Mfg .Co., Ltd., Danville, Que.
Lachute Shuttle Co., Ltd., Lachute Mills, Que.
Lally Lacrosse Mfg Co, The, Cornwall Ont
McFarlane, Neill Mfg. Co., Ltd., St. Mary's, N.B.
St. Mary's Wood Specialty Co., Ltd., St. Mary's, Ont
Still, F. M., Mfg. Co., Ltd., St Thomas, Ont
Victor Wood Works, Ltd,, The, Amherst, N.S.

HANDLES, Axe.

Canada Axe & Harvest Tool Mfg. Co., Ltd., Montreal, Que.
Canadian Handle Mfg. Co., Ltd., London, Ont.
Danville Mfg .Co., Ltd., Danville, Que.
Dominion Snath Company, Waterville, Que.
Lachute Shuttle Co., Ltd., Lachute Mills, Que.
McFarlane, Neill Mfg. Co., Ltd., St. Mary's, Ont.
Pink, Thomas, Pembroke, Ont.
St. Mary's Wood Specialty Co., Ltd., St. Mary's, Ont
Still, F. M.. Mfg. Co., Ltd St Thomas, Ont
Thomas Bros., Ltd., St. Thomas, Ont.
Walters, H., & Sons, Hull, Que.
Victor Wood Works, Ltd,, The, Amherst, N.S.

HANDLES, Broom.

Canada Wood Specialty Co., Ltd., Orillia, Ont.
Lachute Shuttle Co., Ltd., Lachute Mills, Que.
Lyster Wood Box Turning & Enameling Co., Ltd., Lyster, Que.
Still, F. M., Mfg. Co., Ltd., St Thomas, Ont

HANDLES, Chisel and File.

Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
Lyster Wood Box Turning & Enameling Co., Ltd., Lyster, Que.

HANDLES, Door (Metal.)

Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Peterborough Lock Mfg. Co., The, Ltd., Peterborough, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Stratford Brass Co., Ltd., The, Stratford, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
Toronto Brass Mfg. Co., Toronto, Ont.

HANDLES, Fork, Hoe, Rake, Sledge, Pick, Maul, Canthook and Peavy.

Canada Axe & Harvest Tool Mfg. Co., Ltd., Montreal, Que.
Canadian Handle Mfg. Co., Ltd., London, Ont.
Canadian Warren Axe & Tool Co., Ltd., St. Catharines, Ont.
Dominion Snath Company, Waterville, Que.
Gignac, J. H., Ltd., Quebec, Que
Lachute Shuttle Co., Ltd., Lachute Mills, Que.
Maple Leaf Harvest Tool Co., Ltd., Tillsonburg, Ont.
McFarlane, Neill Mfg. Co., Ltd., The, St. Mary's, N.B.
St. Mary's Wood Specialty Co., Ltd., St. Mary's, Ont.
Still, F. M., Mfg. Co., Ltd., St Thomas, Ont
Victor Wood Works, Ltd,, The, Amherst, N.S.

HANGERS, Barn Door, Etc.

Allith Mfg. Co., Ltd., Hamilton, Ont.
Beatty Bros., Ltd., Fergus, Ont.
Canada Steel Goods Co., Ltd., Hamilton, Ont.
Dillon, R., & Son, Oshawa, Ont.
Louden Machinery Company Guelph, Ont.
Richards-Wilcox Company, Guelph, Ont.
Safety Door Hanger Co., Ltd., Hamilton, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.

HANGERS, Coat, Hat and Clothes.

Andrews Wire Works of Canada, Ltd., Watford, Ont.
Ben Hur Mfg. Co., Ltd., Hamilton, Ont
Lindsay Library Office Fitting Co., Ltd., Lindsay, Ont.
Toronto Woodworking Co., Toronto, Ont.
Quality Beds, Ltd., Welland, Ont.
Richardson, A. S., & Co., Toronto, Ont.

HANGERS, Pipe.

Bennett & Wright Co., Ltd., Toronto, Ont.
Hamilton Bridge Works Co., Ltd., The, Hamilton, Ont.
Steel & Radiation, Ltd., Toronto, Ont.

HANGERS, Shafting.

Bruce Agricultural Works, The, Teeswater, Ont.
Calgary Iron Works, Ltd., The, Calgary, Alta.
Canadian Bond Hanger & Coupling Co., Ltd., Alexandria, Ont.
Corbet Foundry Co., The, Owen Sound Ont.
Dodge Mfg. Co., Ltd., Toronto, Ont.
Elmira Machinery & Transmission Co., Ltd., Elmira, Ont.
Gardner, Robt., & Son, Ltd., Montreal, Que.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Inglis The John, Co., Ltd., Toronto, Ont.
International Engineering Works, Ltd., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Jones & Glassco, Montreal, Que.
Letson & Burpee, Ltd., Vancouver, B.C.
Long, The E., Mfg., Co., Ltd., Orillia, Ont.
Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
Matheson, I., & Co., New Glasgow, N.S.
McDougall, The John, Caledonian Iron Works, Co., Ltd., Montreal, Que.
Miller Bros. & Sons, Ltd., Montreal, Que.
Modern Machine & Electrical Works, Toronto.
Owen Sound Iron Works Co., Ltd., Owen Sound, Ont.
Payette, The P., Co., Penetanguishene, Ont.
Plessisville Foundry Co., Ltd., The, Plessisville, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Stratford Mill Building Co., Ltd., The, Stratford, Ont.
St. John Iron Works, Ltd., St. John, N.B.
Turner, John, & Son, Toronto, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.
Wilson, J. C., & Co., Glenora, Ont.

HARDWARE, Builders.

Beaver Brass Mfg. Co., Ltd., The, Toronto. Ont.
Belleville Hardware & Lock Mfg. Co., Ltd., Belleville, Ont.
British American Hardware Mfg. Co., Toronto, Ont.
Canada Steel Goods Co., Ltd., Hamitlon, Ont.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Economy Foundry Co., Ltd., Winnipeg, Man.
Electric Meter & Stamping Co., Ltd., The, New Hamburg, Ont.
Hahn Brass Co., Ltd., The, New Hamburg, Ont.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Hope, Henry, & Sons, Ltd., Toronto, Ont.
Kerr & Coombes Foundry Co., Ltd., Hamilton, Ont.
Louden Machinery Co., Guelph, Ont.
Lymburner, Ltd., Montreal, Que.
McGregor & McIntyre, Ltd., Toronto, Ont.
Montreal Hardware Mfg. Co., Ltd., The, Montreal, Que.
National Hardware Co., Ltd., Orillia, Ont.
Peterborough Lock Mfg. Co., Ltd., The, Peterborough, Ont.
Richards-Wilcox Canadian Co., Ltd., London, Ont.
Smart, The Jas., Mfg. Co., Ltd., Brockville, Ont.
Springer Lock Co., Ltd., Belleville, Ont.
Stratford Brass Co., Ltd., The, Stratford, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
Tilden, Gurney & Co., Ltd., Winnipeg, Man.
Toronto Brass Mfg. Co., Toronto, Ont.

HARDWARE, Carriage

Electric Meter & Stamping Co., Ltd., The, New Hamburg, Ont.
Gregg Mfg. Co., Ltd., Winnipeg, Man.
Guelph Carriage Top Co., Guelph, Ont.
Kinzinger, Bruce & Co., Ltd., Niagara Falls Ont.
McKinnon Dash Co., St. Catharines, Ont.
Skinner Co., Ltd., The, Gananoque, Ont.
Smart, The James Mfg. Co., Ltd., Brockville, Ont.

HARDWARE, Furniture or Cabinet Markers'.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Gilson Mfg. Co., Ltd., Guelph, Ont.
Newell Mfg. Co., The, Prescott, Ont.
Springer Lock Co., Ltd., Belleville, Ont.

HARDWARE, Saddlery.

Adams Bros. Harness Mfg. Co., Ltd., Toronto,
Carson, Hugh, Ltd., Ottawa, Ont.
Gananoque Harness Works, Ltd., Gananoque, Ont.
Imperial Mfg. Co., Welaind, Ont.
Martin Mfg. Co., The, Whitby, Ont.
McKinnon Dash Co., St. Catharines, Ont.
Rudd, Geo. A., & Co., Ltd., Toronto, Ont.
Skinner Co., Ltd., The, Gananoque, Ont.

HARDWARE SPECIALTIES.

Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
Allith Mfg. Co., Ltd., Hamilton, Ont.
Canada Steel Goods Co., Ltd., Hamilton, Ont.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Collins Mfg. Co., The, Toronto, Ont.
Gregg Mfg. Co., Ltd., Winnipeg, Man.
Hardware Specialties, Ltd., Winnipeg, Man.
Kinzinger, Bruce & Co., Ltd., Niagara Falls Ont.
Louden Machinery Co., Guelph, Ont.
Montreal Hardware Mfg. Co., Ltd., The, Montreal, Que.
Parmenter & Bulloch Co., Ltd., The, Gananoque, Ont.
Richards-Wilcox Canadian Co., Ltd., London, Ont.
Westport Mrf. & Plating Co., Ltd., The, Westport, Ont.

HARDWARE, Trunk and Bag.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Electric Meter & Stamping Co., Ltd., The, New Hamburg, Ont.

HARE.—The hair of the hare is used in making felt hats, and the back pieces of the skin sometimes as fur. The best skins come from Asiatic Russia, the Crimea, Saxony, and Silesia.

HARNESS.

Adams Bros. Harness Mfg. Co., Ltd., Toronto,
Ackerman, B. F., Con & Co., Peterborough, Ont. Ont.
Alberta Saddling Co., Ltd., Lethbridge, Alta.
Beal Bros., Ltd., Toronto, Ont.
Bickerton Bros. & Co., Woodstock, Ont.
Borbridge, S. & H., Brandon, Man.
Borbridge, S. & H., Ottawa, Ont.
Boyer, J. W. & Co., Victoria Corner, N.B.
Calgary Saddlery Co., Ltd., The, Calgary, Alta.
Carson, Hugh, Ltd., Ottawa, Ont.
Darch, J. & Sons, London, Ont.
Eaton, The T. Co., Ltd., Toronto, Ont.
Gananoque Harness Works, Ltd., Gananoque, Ont.
Great West Saddlery Co., Ltd., The, Winnipeg, Man.
Griffiths, G. L., & Son, Stratford, Ont.
Heney Carriage & Harness Co., Ltd., Montreal.
Horton, H. & Sons, St. John, N.B.
Jolley, Jas., & Sons, Ltd., Hamilton, Ont.
Kelly's, Ltd., Halifax, N.S.
Kirckham & Currie, St. John, N.B.
Lamontagne, Ltd., Montreal, Que.
Matte Mfg. Co., St. Basile, Port Neuf, Que.
Norris, F., & Sons, Victoria, B.C.
Royal Oak Saddlery Co., Ltd., Prince Albert, Sask.
Rudd, Geo. A., & Co., Toronto, Ont.
Rudd, Chas. R., & Co., Brockville, Ont.
Standard Mfg. Co., Ltd., Sackville, N.B.
Stirling, Jos., St. John, N.B.
Thomson, Alexander, Toronto, Ont.
Trees, Samuel & Co., Ltd., Toronto, Ont.
Wilson, M. J., & Sons, Ottawa, Ont.
Winnipeg Saddlery Co., Ltd., Winnipeg, Man.
Winnipeg Training Co., Ltd., Winnipeg, Man.
Wood Bros., St. Catharines, Ont.
Wry, A. E., Ltd., Sackville, N.B.

HARROW CARTS.

Massey-Harris Co., Ltd., Toronto, Ont.
Tudhope-Anderson Co., Ltd., Orillia, Ont.

HARTSHORN.—Ammonia is often called spirits of hartshorn, because a product of distillation from the horns of the red deer, chiefly ammonia, was formerly used in medicine.

HARVESTERS, Pea.

Beatty Bros., Ltd., Fergus, Ont.
Tolton Bros., Ltd., Guelph, Ont.

HARVESTERS, Self-Binding. (See Grain Binders.)

HATCHETS.

Campbell Bros., St. John, N.B.
Fowler, Josiah, Co., Ltd. St. John, N.B.
Richards-Wilcox Canadian Co, Ltd., London, Ont.
Smart, The James Mfg. Co., Ltd., Brockville, Ont.
Whitman & Barnes Mfg Co., St. Catharines, Ont.

HATS.—The chief kinds of hats are felt hats, silk hats, and straw hats. The first are made chiefly of rabbit fur, with an admixture of hare, beaver, musk-rat, and vicuna hair in the finer qualities, and of wool in the cheaper kinds. Some of the very commonest are made of wool and cotton or other vegetable fibres made to cohere by gum. Silk hats are made of fine silk plush which is applied with the aid of lac and Dammar varnish to a form consisting of two or three layers of cotton cloth saturated with varnishes. Straw hats are made of fine wheat straw, split and plaited, the best being woven in one piece. Rice straw is used in Italy, wood chip of the fine poplar and willow in Bohemia and the Black Forest. In America palm leaves are employed in the manufacture, and this material is imported into Europe. (See **CHIP.**) Of this kind of hat the best is the Panama, woven of the leaves of a species of screw pine. The best Panama hats are made at Jipijapa in Ecuador. A new material from Reunion, has been introduced.

HATS, Beaver and Velour.

Crown Hat Co., Ltd., The, Galt, Ont.
Elite Hat Mfg. Co., Montreal, Que.

Walker, E. C., & Sons, Toronto.

HATS, Cloth.

Allan, A. A., & Co., Ltd., Toronto, Ont.
Big Four Cap Co., Toronto, Ont.
Bruce Mfg. Co., Toronto, Ont.
Canada Cap Co., Ltd., Truro, N.S.
Eastern Hat & Cap Co., Ltd., Truro, N.S.
Echlin Mfg. Co., Ltd., The, Winnipeg, Man.
Elite Hat Mfg. Co., Montreal, Que.
Fraser Cap Co., London, Ont.
Goldner, A., Montreal, Que.
Palter Bros., Toronto, Ont.
Punchard, Chas. C. & Co., Toronto, Ont.
Redmond Co., Ltd., The, Montreal, Que.

HATS, Felt.

Boutler, Waugh & Co., Ltd., Montreal, Que.

Crean, Robt., & Co., Ltd., Toronto, Ont.
Crown Hat Co., Ltd., The, Galt, Ont.
Dominion Straw Goods Mfg. Co., Ltd., Montreal, Que.
Elite Hat Mfg. Co., Montreal, Que.
Everett, C. & E., St. John, N.B.
Globe Hat Works Co., Montreal, Que.
Guillet, E., & Sons, Marieville, Que.
Punchard, Chas. C. & Co., Toronto, Ont.
King Hat Co., Montreal, Que.
Magee's, D. & Sons, Ltd., St. John, N.B.
Radford, Wm., Toronto, Ont.
Shuttleworth, J. R. & Sons, Ltd., London, Ont.
Toronto Hat Mfg. Co., Toronto, Ont.
Von Gal, E. J. Co., Ltd., Niagara Falls, Ont.
Walker, E. C., & Sons, Toronto.
Wolthausen Hat Corporation, Ltd., The, Brockville, Ont.
Wright Hats, Ltd., London, Ont.

HATS, Oiled.

Creaser, J. F. Co., Ltd., La Have, N.S.
Tower Canadian, Ltd., Toronto, Ont.

HATS, Panama.

Crown Hat Co., Ltd., The, Galt, Ont.
Punchard, Chas. C. & Co., Toronto, Ont.

HATS, Ready-to-Wear.

American Hat Frame Co., Toronto, Ont.
Crown Hat Co., Ltd., The, Galt, Ont.
Fairweathers, Ltd., Toronto, Ont.
Globe Hat Works Co., Montreal, Que.
Goulding, G., & Sons, Toronto, Ont.
Ivey, John D., Co., Ltd., Toronto, Ont.
Morgan, H., & Co., Ltd. Montreal Que.
Shuttleworth, J. R. & Sons, Ltd., London, Ont.
Walker, E. C., & Sons, Toronto.
Wright Hats, Ltd., London, Ont.

HATS, Rubber.

Canadian Consolidated Rubber Co. Ltd. Montreal Que.

HATS Straw, Men's and Women's.

Crean, Robt., & Co., Toronto, Ont.
Crown Hat Co., Ltd., The, Galt, Ont.
Dominion Straw Goods Mfg. Co., Ltd., Montreal, Que.
Excelsior Hat Co., St. John's, Que.
Guillet, E., & Sons, Marieville, Que.
Radford, Wm., Toronto, Ont.
St. John's Straw Works Co., Ltd., St. John's, Que.
Shuttleworth, J. R. & Sons, Ltd., London, Ont.
Toronto Hat Mfg. Co., Toronto, Ont.
Walker, E. C., & Sons, Toronto, Ont.
Wright Hats, Ltd., London, Ont.

HAY LOADERS.

Cossit Company, Ltd., The, Brockville, Ont.
Dain Mfg. Co., Ltd., Welland, Ont.
Frost & Wood Co., Ltd., The, Smith's Falls, Ont
Massey-Harris Co., Ltd., Toronto, Ont.
Maxwell, David, & Sons, St. Mary's, Ont.
National Mfg. Co., Ltd., Ottawa, Ont.
Noxon Co., Ltd., The, Ingersoll, Ont.
Stewart Sheaf Loader Co., Ltd., Winnipeg, Man.

HAY RAKES, Horse.

Cossit Company, Ltd., The, Brockville, Ont.
Frost & Wood Co., Ltd., The, Smith's Falls, Ont
Hamilton, Peter, Co., Ltd., Peterborough, Ont.
International Harvester Co., of Canada, Ltd., Hamilton, Ont.
Moody, The Matthew, & Sons Co., Terrebonne, Que.
Noxon Co., Ltd., The, Ingersoll, Ont

HAY TEDDERS.

International Harvester Co., of Canada, Ltd., Hamilton, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Maxwell, David, & Sons, St. Mary's, Ont.

HAY AND GRAIN UNLOADERS, Forks, Slings, Etc.

Beatty Bros., Ltd., Fergus, Ont.
Louden Machinery Co., Guelph, Ont.

HAZEL-NUTS. (See NUTS.)

HEADLIGHTS, Electric Car and Engine.

Crouse-Hinds Co. of Canada, Toronto, Ont.
Piper, The Hiram L. Co., Ltd., Montreal, Que.
Piper, The N. L., Railway Supply Co., Ltd., Toronto, Ont.
Wright, E. T., & Co., Hamilton, Ont.

HEADWEAR, Children's

Beatty Mfg. Co., Toronto, Ont.
Bruce Mfg. Co., Toronto, Ont.
Crochet & Knitting Specialty Co., Toronto, Ont.
Finnie, A., Bruce & Co., Montreal, Que.
Knox Mfg. Co., Toronto, Ont.
McRae Mfg. Co., Ltd., Toronto, Ont.
Northland Knitting Co., Ltd., Winnipeg, Man.

HEARSES.

Girard & Godin, Three Rivers, Que.
Greer, A. B., London, Ont.
Mitchell & Co., Ingersoll, Ont.
Moisan, Hubert, Quebec, Que.
National Casket Co., Toronto, Ont.

HEATERS, Air Tight.

Markwell Mfg. Co., Ltd., Winnipeg, Man.
McLennan, McFeely & Co., Ltd., Vancouver, B.C.
Sheet Metal Products Co. of Canada, Ltd., Winnipeg, Man.

HEATERS, Base Burner.

Buck, The Wm., Stove Co., Ltd., Brantford, Ont.
Clare Bros. & Co., Ltd., Preston, Ont.
Guelph Stove Co., Ltd., Guelph, Ont.

Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Lamarre & Cie., St. Remi, Que.
McClary Mfg. Co., London, Ont.
Moore, The D., Co., Ltd., Hamilton, Ont.
Percival Plow & Stove Co., Ltd., Merrickville, Ont.
Smart, The Jas., Mfg. Co., Ltd., Brockville, Ont.
Supreme Heating Co., Ltd., Welland, Ont.
Thompson & Sutherland, Ltd., New Glasgow, N.S.
Western Foundry Co., Ltd., The, Wingham, Ont

HEATERS, Car.

Crossen Car Co., Ltd., Cobourg, Ont.
Piper, The Hiram L. Co., Ltd., Montreal, Que.
Hepburn, John T., Toronto, Ont.
Hinton Electric Co., Ltd., Vancouver, B.C.

HEATERS, Electric, Air and Immersion.

Canadian General Electric Co., Ltd., Toronto.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Hot Point Electric Co., Toronto, Ont.
National Electric Heating Co., Ltd., Toronto.

HEATERS, Feed Water.

Babcock & Wilcox, Ltd., Montreal, Que.
Canada Steam Pump & Machine Co., Ltd., Toronto. Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Darling Bros., Ltd., Montreal, Que.
Goldie & McCulloch Co., Ltd., The, Galt, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Inglis, The John, Co., Ltd., Toronto, Ont.
International Engineering Works, Ltd., Montreal. Que.
Leonard, E., & Sons, London, Ont.
Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Waterous Engine Works Co., Ltd., Brantford, Ont.

HEATERS, Gas Water.

Bigley, The R., Mfg. Co., Ltd., Toronto, Ont.
Bowes, Jamieson, Ltd., Hamilton, Ont.
Burns, John & Co., Montreal, Que.
Colwell Lead Co., Windsor, Ont.
Fiddes & Hogarth, Ltd., Toronto, Ont.

HEATERS

Hot Water and Steam.

Armstrong, The Fred Co., Ltd., Toronto, Ont.
Beaupre & Fils, Montreal, Que.
Bennett & Wright Co., Ltd., Toronto. Ont.
Bigley, The R. Mfg. Co., Ltd., Toronto, Ont.
Bruce Agricultural Works, The, Teeswater, Ont.
Butterworth Foundry, Ltd., Ottawa, Ont.
Canada Stove & Furniture Co., Ltd., Montreal, Que.
Darling Bros., Ltd., Montreal, Que.
Dominion Radiator Co., Ltd., Toronto, Ont.
Farquhar Bros., Ltd., Halifax, N S.
Gurney Foundry Co., Ltd., Toronto, Ont.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Hughes, J. W., & Son, Montreal, Que.
Lamarre & Cie., St. Remi, Que.
Leonard, E., & Sons, London, Ont.
Longard Bros., Halifax, N.S.
Lunenburg Foundry Co., Ltd., Lunenburg, N.S.
McGuire, W. J., Ltd., Toronto, Ont.
National Boiler Washing Co, Ltd., Montreal.
Norsworthy, The C Co., Ltd., St. Thomas, Ont.
Pease Foundry Co., Ltd., Toronto, Ont.
Pease-Waldon Co, Ltd., Winnipeg, Man.
Picard, O. & Fils, Quebec, Que.
Steel & Radiation, Ltd., Toronto, Ont.
Sydney Foundry Machine Works Ltd., Sydney, N.S.
Thompson & Sutherland, Ltd., New Glasgow, N.S.
Toronto Furnace & Crematory Co., Ltd., The, Toronto, Ont.
Warden, King, Ltd., Montreal, Que.

HEATING APPARATUS, Hot Air.

Canadian Buffalo Forge Co., Ltd., Montreal.
Canadian Sirocco Co., Ltd., Windsor, Ont.
Clare Bros. & Co., Ltd, Preston, Ont.
Gurney Foundry Co., Ltd., Toronto, Ont.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Hughes, J. W., & Son, Montreal, Que.
Hardware Specialties, Ltd., Winnipeg, Man.
McGuire, W. J., Ltd., Toronto, Ont.
Pease Foundry Co., Ltd., Toronto, Ont.
Pease-Waldon Co, Ltd., Winnipeg, Man.
Sheldon's, Ltd., Galt, Ont.
Waterman Waterbury Co., Ltd., Windsor, Ont.

HEATING, Fan or Hot Blast System.

Canadian Sirocco Co., Ltd., Windsor, Ont.
McGuire, W. J., Ltd., Toronto, Ont.

HEELS AND SOLES, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber, Ltd., Toronto, Ont.
Gutta Percha Rubber, Ltd., Toronto, Ont.
Walpole Rubber Co., Ltd., Montreal, Que.

HELLEBORE, an active poison obtained from the roots of Veratrum album and viride. It is used as an insecticide and sparingly in medicine. Black hellebore is extracted from the roots of the Christmas rose. It is not so much applied in medicine as it used to be.

HELMETS, Uniform.

Mortimore & Blackeby, Toronto, Ont.
Scully, Wm., Montreal, Que.
Toronto Helmet & Cap Co., Ltd., Toronto, Ont.

HEMATITE, red oxide of iron, found chiefly in Cumberland, Elba, near Lake Superior, and in Alabama. **(See IRON and STEEL.)**

HEMLOCK.—There are two varieties of hemlock in Canada, viz.: Eastern Hemlock, which grows in Ontario, Quebec, and the Maritime Provinces, and Western Hemlock, which grows in British Columbia. It is really a very poor material for lumber, being coarse, brittle, and cross-grained. It is difficult to work, is liable to cupshakes, and other defects, and has a tendency to warp and twist. It is, however, stiff and non-resinous, holds nails well, and comes between pine and spruce in durability. The greatest points in its favor, are its cheapness and abundance. It is largely used for building and rough sheeting. The bark of the Eastern Hemlock is used in tanning, for which purpose it is also exported, either in the bark itself, or in an extract that is made from the bark. **(See WOOD.)**

HEMP.—Common hemp is native to Western Asia, but can be cultivated almost anywhere. It requires a moist warm climate, but owing to the short period of growth, from 90 to 105 days, it is grown in many northern countries. It grows best on rich, moist soil, fenny lands, marshes, but can be produced with satisfaction on almost any soil with due attention being paid to fertilizing and cultivation. The plant is an annual and like flax is usually cultivated both for fibre and seed. The fibre is contained between the outer bark of the plant and the inner core and is from 3 to 7 feet long. The stems of the plant are pulled out by the roots and cleaned of the leaves and flowers on the spot. The methods employed of securing the fibre are very similar to the treatment given the flax straw but as the hemp fibre is much coarser and stronger than flax a more severe treatment is given. Owing to the great strength of the fibre it is used in the manufacture of such articles as sail-cloth, ropes, packing cloth, heavy twines, etc. The cultivation of common hemp is carried on in Japan, China, India, Siberia, southern and central Russia, France, Spain, Germany, Italy, Hungary and Africa.

Other varieties of hemp are Manilla, Sisal and Sunn hemp.

Manilla Hemp is cultivated in the Philippines. The plant has a palm-like appearance and reaches maturity for fibre purposes in four years after planting. The stalks are cut off at the root and the leaves stripped off. The pulp is then scraped off and the clean stalk dried and sorted in to various qualities of fibres. Manilla is the best known rope fibre combining lightness with strength.

Sisal Hemp is cultivated in Yucatan, Mexico, Honduras, Central America, Florida and Australia. It grows on dry, stony sail and requires little cultivation. It is an inferior fibre but has found its place among the fibres of commerce in the manufacture of binder twine which is almost entirely made from the sisal fibre. The fibre is contained within the leaves and is obtained by removing the outer coating and the pulp, special machines being used for this scraping operation.

Sunn Hemp is cultivated in Northern India and throughout Australia. It will grow on any fertile soil, two crops being raised each year. The plants are pulled up by the roots, stripped of their leaves and prepared similar to the methods used in the treatment of common hemp. The fibre varies in length from 3 to 7 feet and is largely used in the manufacture of coarse threads, linens, etc. The New Zealand and Indian hemp of commerce is of this variety.

The manufacture of hemp in Canada is limited to the making of binder twine and the using of hemp yarn in the manufacture of carpets, upholstery goods, etc. The imports of hemp during the fiscal year ending March 31, 1914, were as follows: Dressed and undressed hemp, 55,572 cwt., valued at $448,970; sail canvas, $21,286; sail twine, 10,962 pounds, valued at $1,995. The imports of binder twine during the same period amounted to 36,757,907 pounds valued at $3,779,589; jute and hemp yarn 2,717,594 pounds, valued at $283,736.

HENBANE, the fruit and leaves of Hyoscyamus niger and H. albus are used as sedatives both internally and externally. The plants grow mostly in the countries round the Mediterranean Sea.

HENEQUEN. (See SISAL HEMP.)

HERRING.—The herring is one of the most important food fishes. It is found in the seas of Northern Europe and in the Arctic Ocean, but is rare off the coasts of Iceland and Greenland. Southwards it does not extend beyond the British Channel. The herring of the southern states of North America is a different variety. **(See FISH.)**

HESSIAN, a packing material made of jute.

HICKORY is Canada's most valuable structural wood, although the domestic supply is very limited, and a large part is imported. The wood is very valuable on account of its extraordinary hardness, strength, toughness, and elasticity, in all of which it excels all other native woods. In the trade it is known as either red or white hickory. It is used chiefly by makers of vehicle supplies, and tool handles. It is the best-known material for spokes and axe handles. **(See WOOD.)**

HICKORY NUTS. (See PECAN NUTS.)

HIDES.—The hides of many animals are cured and are exported chiefly for the purpose of making leather. The most generally used are those of the ox, cow, bull, and calf, which are obtained from local slaughter-houses, and are also exported in large quantities from Australia, the Cape, and South America, either wet or dry salted. Small hides and buffalo hides come from the East Indies. The hides of the horse, sheep, deer, dog, kid, and kangaroo are also tanned and made into various articles. **(See GLOVES, LEATHER.)**

HIDES.

Carter, E. T., & Co., Toronto, Ont.
Goodhue, J. L., & Co., Toronto, Ont
Harris Abattoir Co., Ltd. Toronto, Ont.
Kimble, John, & Son, Ltd., St. John, N.B.
Labreque, Francis, Quebec, Que.
Marquis, F. Canac, Quebec, Que.
Peters, C. H., Sons, Ltd., St. John, N.B
Peters, C. H., Sons, Ltd., St. John, N.B.
Stone, Wm., Sons, Ltd., Woodstock, Ont.
Swift Canadian Co., Ltd., Winnipeg, Man.

HINGES, Brass and Bronze.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Mitchell, The Robt., Co., Ltd., Montreal, Que.

HINGES, Butt, Blind, Door, Etc.

Canada Steel Goods Co., Ltd., Hamilton, Ont.
Canadian Yale & Towne, Ltd., St. Catharines,
Cowan & Britton, Ltd., Gananoque, Ont.
Montreal Hardware Mfg. Co., Ltd., The, Montreal, Que.
Peterborough Lock Mfg. Co., The, Ltd., Peterborough, Ont.
Smart, The James Mfg. Co., Ltd., Brockville, Ont.
Steel Equipment Co., Ltd., Ottawa, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.

HINGES, Spring.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Cowan & Britton, Ltd., Gananoque, Ont.
Mitchell, The Robt., Co., Ltd., Montreal, Que.
Smart, The James Mfg. Co., Ltd., Brockville, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.

HINGES, Screw and Hook.

Canada Steel Goods Co., Ltd., Hamilton, Ont.

Cowan & Britton, Ltd., Gananoque, Ont.
Steel Co. of Canada, Ltd., Toronto, Ont.,

HINGES, Strap.

Canada Steel Goods Co., Ltd., Hamilton, Ont.
Cowan & Britton, Ltd., Gananoque, Ont.
Montreal Hardware Mfg. Co., Ltd., The, Montreal, Que.
Smart, The James Mfg. Co., Ltd., Brockville, Ont.
Starr Mfg. Co., Ltd., Dartmouth, N.S.
Steel Co. of Canada, Ltd., Toronto, Ont.,

HINGES, Tee.

Canada Steel Goods Co., Ltd., Hamilton, Ont.
Smart, The James Mfg. Co., Ltd., Brockville, Ont.

HINGES, Trunk and Suit Case.

Springer Lock Co., Ltd., Belleville, Ont.

HOCKEY PADS.

General Leather Goods, Ltd., Toronto, Ont.
Western Leather Goods Co., Ltd., Toronto, Ont.

HOCKEY PUCKS.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
Gutta Percha & Rubber, Ltd., Toronto, Ont.

HOCKEY STICKS.

Hilborn Company, The, Ayr, Ont.
Hingston- Smith Arms Co., Ltd., The, Winnipeg, Man.
Holland, G. A., & Son Co., Montreal, Que.
Lally Lacrosse Mfg. Co., The, Cornwall, Ont.
St. Mary's Wood Specialty Co., Ltd., St. Mary's, Ont.
Salyerds Mfg. Co., Ltd., Preston, Ont.
Starr Mfg. Co., Ltd., Dartmouth, N.S.
Still, F. H., Mfg. Co., Ltd., St. Thomas, Ont.

HODS, Coal.

Davidson, The Thos., Mfg. Co., Ltd., Montreal.
McClary Mfg. Co., London, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.

HODS.

Meaford Wheelbarrow Co., Ltd., Meaford, Ont.

HOE DRILLS.

Hamilton, Peter, Co., Ltd., Peterborough, Ont.
International Harvester Co. of Canada, Ltd., Hamilton, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.

HOES.

Bedford Mfg. Co., The, Bedford, Que.
Canada Axe & Harvest Tool Mfg. Co., Ltd., Montreal, Que.
Maple Leaf Harvest Tool Co., Ltd., Tillsonburg, Ont.
Welland Vale Mfg. Co., Ltd., The, St. Catharines, Ont.

HOES, Horse.

(See Scufflers, Field Cultivators, Etc.)

HOGS.—The numbers of hogs or swine in countries other than Canada are as follows: United States, 58,933,000; Germany, 25,274,326; France, 7,047,750; Hungary, 6,824,657; United Kingdom, 3,992,549; Argentine, 2,900,000; Spain, 2,571,359; Netherlands, 1,350,204; Belgium, 1,229,428; Australia, 844,313; Switzerland, 570,226; New Zealand, 348,754; Bosnia and Herzegovina, 527,271.

ANIMALS.—Hogs on Canadian farms in 1914 totalled 3,434,261, representing a value of 42,418,325, or an average value per head of $12.35. The number of hogs sold in Canada in 1910, the last year for which there are complete returns, totalled 2,771,755, valued at $33,229,063, of which the value of hogs slaughtered in that year amounted to $18,115,303. In the same year the exports of hogs totalled 390, valued at $7,844, and the exports of pork amounted to 598,981 lbs., valued at $48,780. The imports of pork, barrelled in brine, were valued at $925,392, and of bacon and ham, $830,545.

HOISTS, Air.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Ingersoll Rand Co., Ltd., Montreal.
Canadian Pneumatic Tool Co., Ltd., Montreal.
Taylor & Arnold, Ltd., Montreal.

HOISTS, Chain.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Morris, The Herbert, Crane & Hoist Co., Ltd., Toronto, Ont.

HOISTS, Electric.

Armtsrong, H. J., Markdale, Ont.
Asbestos Foundry Co., Inc., Thetford Mines, Que.
Beath, W. D. & Son, Ltd., Toronto, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Ingersoll Rand Co., Ltd., Montreal.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Morris, The Herbert, Crane & Hoist Co., Ltd., Toronto, Ont.
Northern Crane Works, Walkerville, Ont.

HOISTS, Friction and Gear.

Gilson Mfg. Co., Ltd., Guelph, Ont.
Jeffrey Mfg. Co., Montreal, Que.
Marsh & Henthorn, Ltd., Belleville, Ont.
Perrin, W. R., & Co., Ltd., Toronto, Ont

HOISTS, Hand and Portable.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.

HOISTS, Mining and Contractors'

Armstrong, H. J., Markdale, Ont.
Beatty, M., & Sons, Ltd., Welland, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Matheson, I., & Co., New Glasgow, N.S.
Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
Marsh & Henthorn, Ltd., Belleville, Ont.
Napanee Iron Works, Napanee, Ont.

HOISTS, Steam.

Asbestos Foundry Co., Inc., Thetford Mines, Que.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Morris, The Herbert, Crane & Hoist Co., Ltd., Toronto, Ont.
Pollard Mfg. Co., Ltd., Niagara Falls, Ont.
Terminal City Iron Works, Vancouver, B.C.
Thetford Cie., Ltd., La Fonderie de, Thetford Mines, Que.
West & Peachey, Simcoe, Ont.

HOLDERS, Bag.

Computing Scale Co. of Canada, Ltd., Toronto.

HOLDERS. Door.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.

Taylor-Forbes Co., Ltd., Guelph, Ont.

HOLDERS, Pillow-Sham.

Ontario Spring Bed & Mattress Co., Ltd., London, Ont.

HOLLANDS, a gin made in Holland, principally at Schiedam, and in Germany, from rye-meal and malt, and flavoured with juniper, whence the name gin.

HOLLOW-WARE, Cast Iron.

Clare Bros. & Co., Ltd., Preston, Ont.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
McClary Mfg. Co., London, Ont.
Moore, The D., Co., Ltd., Hamilton, Ont.
Plessisville Foundry Co., Ltd., The, Plessisville, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Stewart, James, Mfg. Co., Ltd., The, Woodstock, Ont.

HOLLOW-WARE, Silver-plated.

Ellis, P. W., & Co., Ltd., Toronto, Ont.
Meriden Britannia Co., Hamilton, Ont.
Standard Silver Co. of Toronto, Ont.
Toronto Silver Plate Co., Ltd., The, Toronto.

HOLLOW-WARE, Sterling Silver.

Birks, Henry, & Sons, Ltd., Montreal, Que.
Ellis, P. W., & Co., Ltd., Toronto, Ont.
Meriden Britannia Co., Hamilton, Ont.
Roden Bros., Ltd., Toronto, Ont.
Toronto Silver Plate Co., Ltd., The, Toronto

HOMESPUNS. (See Cloth.)

HOMINY.

Chisholm Milling Co., Ltd., Toronto, Ont.

HONEY.—Apiculture is carried on in almost all European countries, and the annual production is estimated at about 80,000 tons. Many extra European countries also export honey in considerable quantities—Tunis and Algeria, North America, especially California, South America, especially Chile, and New Zealand. The best honey is obtained from the flowers of the lime-tree and from heather, and spring honey is better than autumn honey. "Virgin" honey is contained in pure white combs which have never been used for the incubation of eggs. In order to extract all the honey the comb is pressed and heated, but this is effected more advantageously with centrifugal machines.

HOOFS. (See HORNS.)

HOOKS, Cabin Door.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.

HOOKS, Grub.

Tudhope-Anderson Co., Ltd., Orillia, Ont.

HOOKS, Harness.

Beatty Bros., Ltd., Fergus, Ont.
Canada Steel Goods Co., Ltd., Hamilton, Ont.
Carson, Hugh, Ltd., Ottawa, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.

HOOKS, Hat and Coat.

Belleville Hardware & Lock Mfg. Co., Ltd., Belleville, Ont.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Clatworthy & Son, Toronto, Ont.
James & Reid, Perth, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Peterborough Lock Mfg. Co., Ltd., The, Peterborough, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Steel Co. of Canada, Ltd., Montreal, Que.
Stratford Brass Co., Ltd., Stratford, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
Westport Mfg. & Plating Co., Ltd., The, Westport, Ont.

HOOKS, Reaping.

Bedford Mfg. Co., The, Bedford, Que.
Canada Axe & Harvest Tool Mfg. Co., Ltd., Montreal, Que.
Maple Leaf Harvest Tool Co., Ltd., Tillsonburg,
Welland Vale Mfg. Co., Ltd., The, St. Catharines, Ont.

HOOKS, Toilet and Towel.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.

HOOKS AND EYES.

DeLong Hook & Eye Co., of Canada, Ltd., St. Mary's, Ont.
Imperial Pin Co., Ltd., Montreal, Que.
Steel Co. of Canada, Ltd., Hamilton, Ont. and Montreal, Que.

HOOP IRON, thin straps of iron used to secure bales of cotton and other goods.

HOOPS, Barrel and Keg.

Ainslie, J. S., & Bro., Comber, Ont.
Cargill, H., & Sons, Cargill, Ont.
Drader, Wm. W., Chatham, Ont.
Guelph Patent Cask Co., Ltd., Scotstown, Que.
Marmora Cooperage Co., Marmora, Ont.
Martin, W. J., & Co., Hillsdale, Ont.
McAllister, Geo., Bloomingdale, Ont.
Randolph & Baker, Randolph, N.B.
Trenton Cooperage Mills, Ltd., Trenton, Ont.
Wallaceburg Cooperage Co., Ltd., Wallaceburg, Ont.

HOOPS, Barrel, Wire.

Laidlaw Bale-Tie Co., Ltd., Hamilton, Ont.
Morrison Steel & Wire Co., Ltd., Vancouver, B.C.
Steel Co. of Canada, Ltd., Hamilton, Ont. and Montreal, Que.
Westminster Wire & Nail Co., New Westminster, B.C.

HOPS.—The female flowers of the hop plant are used in the manufacture of beer and hop bitters. The chief producing countries are Great Britain, the United States, Bavaria, and Austria. The crop is very variable, hops being very dependent on the weather and subject to the attacks of insects.

HORNS.—The horns of cattle, antelopes, sheep, goats, and other animals are manufactured into handles for umbrellas, and walking-sticks, handles of knives, drawer-knobs, boxes, buttons, and other articles. Rhinoceros horn from the East Indies and Africa fetches a high price. Hoofs are also used for the manufacture of buttons and other small articles, and from the hoofs of small animals and the refuse Prussian blue and ammoniacal salts are obtained.

HORSES.—The horse is distributed throughout the temperate and subtropical zones of the world, particularly in countries settled by Europeans. Horse flesh is eaten in some foreign cities, and besides this, the horse furnishes hides, hoofs, horse hair, and horse grease, used as a lubricant, the last being manufactured to a large extent in the Argentine Republic.

The horse population of the world is estimated, according to latest available figures, at 93,760,000, distributed, as follows: Russia, 33,000,000; United States, 21,000,000; Argentine, 8,900,000; Germany, 4,500,000; Austria-Hungary, 4,200,000; France, 3,200,000; Australia, 2,400,000; United Kingdom, 2,150,000; British India, 1,500,000; Japan, 1,500,000; Italy, 900,000; South Africa, 2,700,000; Bulgaria, 500,000; New Zealand, 400,000; Belgium, 260,000; Servia, 150,000; other countries, 5,500,000.

The number of horses in Canada in 1910 is estimated at 2,947,738, valued at $371,430,363. The number of horses sold in Canada in 1910 totalled 319,042, valued at $46,810,659, the Province of Ontario being the largest seller. The number of horses exported in that year totalled 2,762, valued at $553,867.

HORSE POWERS, Sweep.

Bell, B., & Son Co., Ltd., St. George, Ont.
Fleury's, J, Sons, Aurora, Ont.
Marsh & Henthorn's, Ltd., Belleville, Ont.
Moody, The Matthew, & Sons Co., Terrebonne, Que.
New Hamburg, Mfg. Co., Ltd., New Hamburg, Ont.
Waterloo Mfg. Co., Ltd., The, Waterloo, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.

HORSE POWERS, Tread.

Belanger, A., Montmagny, Que.
Bell, B., & Son Co., Ltd., St. George, Ont.
Chalifour, O., & Fils, St. Hyacinthe, Que.
Desjardins, La Cie., St. Andre, Kamouraska County, Que.
Fleury's, J., Sons, Aurora, Ont.
Hall Mfg. Co., Ltd., Summerside, P.E.I.
Moody, The Matthew, & Sons Co., Terrebonne, Que.
National Mfg. Co., Ltd., Ottawa, Ont.

HORSE SHOES.

Gilmour Bros. & Co., Montreal, Que.
Peck Rolling Mills, Ltd., The, Montreal, Que.
Portland Rolling Mills, Ltd., St. John, N.B.
Steel Co. of Canada, Ltd., Montreal, Que.

HOSE, Fire, Unlined Linen.

Neidner's, Chas., Sons Co., Montreal, Que.
Raddaway, F. & Co., Montreal, Que.

HOSE, Linen and Cotton, Rubber Lined.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
Gutta Percha & Ruber Co., Ltd., Toronto.
Raddaway, F. & Co., Montreal, Que.

HOSE, Metallic, for Acids, Gases or Liquids.

Canadian Seamless Wire Co., Ltd., Toronto, Ont.
Ontario Metal Products Co., Ltd., Toronto, Ont.

HOSE, Rubber, Acid, Oil and Sand Blast.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.

HOSE (Rubber), Air Brake, Fire, Hydraulic, Divers', Pneumatic, Steam, Water, Suction, Vacuum, Etc.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
Goodyear Tire & Rubber Co., of Canada, Ltd., Toronto, Ont.
Gutta Percha & Ruber Co., Ltd., Toronto.
Independent Rubber Co., Merritton, Ont.

HOSE SUPPORTERS.

Berlin Suspender Co., Ltd., Berlin, Ont.
Boston Mfg. Co., Ltd., Toronto, Ont.
Canadian Suspender and Mfg. Co., Toronto, Ont.
Eisman and Co., Toronto, Ont.
Glassford Bros., Ltd., Montreal, Que.
Globe Suspended Co., Ltd., Rock Island, Que.
Hall's Ltd., Brockville, Ont.
Kleinent, I. B. Rubber Co., Toronto, Ont.
Leadley Mfg. Co., Ltd., Winnipeg, Man.
Westwood, C. H. Mfg. Co., Ltd., Toronto, Ont.

HOSIERY, frequently restricted to stockings, socks, and other coverings for the feet and legs; hosiery in its more extended meaning denotes any knitted article, that is, a textile formed of a single thread instead of a warp and weft. Waistcoats, blouses, under-garments, shawls, hoods, and various other articles of dress are manufactured in cotton wool or silk, either by hand or by knitting machines.

HOSIERY. Cashmere.

Allen Bros. Co., Toronto, Ont.
Chipman-Holton Knitting Co., Hamilton, Ont.
Clinton Knitting Co., Clinton, Ont.
Goderich Knitting Co., Goderich, Ont.
Thomson Knitting Co., London, Ont.
Penman's, Ltd., Paris, Ont.
Mercury Mills, Hamilton, Ont.

HOSIERY Men's, Women's, Children's (Cotton.)

Acme Knitting Mills, Marieville, Que.
A. Burritt & Co., Mitchell, Ont.
Chipman-Holton Knitting Co., Hamilton, Ont.
Holeproof Hosiery Co., London, Ont.
Joseph Beaumont, Glen Williams, Ont.
Kingston Hosiery Co., Kingston, Ont.
Mercury Mills, Ltd., Hamilton, Ont.
Penman's, Ltd., Paris, Ont.
Reliance Knitting Co., Ltd., Toronto, Ont.
Reiner Bros. & Co., Wellesley, Ont.
Toronto Hosiery Co., Toronto, Ont.
William Shea, Toronto, Ont.

HOSIERY, Lumbermen's Socks.

Avon Hosiery Co., Ltd., Stratford, Ont.
Acme Glove Works, Marieville, Que.
Alex. Dick, Alton, Ont.
Boyd, Caldwell & Co., Appleton, Ont.
Bird Woolen Co., Bracebridge, Ont.
Chesley Woolen Mills, Chesley, Ont.
Excelsior Knitting Mills, Brussels, Ont.
Garayt Knitting Co., Montreal, Que.
Goderich Knitting Co., Goderich, Ont.
Hanson's Woolen Mill, Hull, Que.
Hawthorne Mills, Carleton Place, Ont.
J. B. McCormack, Strathcona, Alta.
John McMurchy, Huttonville, Ont.
Joseph Simpson & Sons, Toronto, Ont.
Joseph Beaumont, Glen Williams, Ont.
Massey Knitting Co., Montreal, Que.
Melrose Knitting Co., Glen Williams, Ont.
O'Hare & Sons, Midland, Ont.
Penman's, Ltd., St. Hyacinthe, Que.
Renfrew Knitting Co., Renfrew, Ont.
Reiner Bros. & Co., Wellesley, Ont.
S. B. Lehman & Sons, Almir, Ont.
Thomas Waterhouse & Co., Ingersoll, Ont.

HOSIERY, Men's, Women's & Children's (Wool and worsted.)

A. Burritt & Co., Mitchell, Ont.
Acme Knitting Mills, Marieville, Que.
Allen Bros. Co., Toronto, Ont.
Arkona Woolen Mills, Arkona, Ont.
Avon Hosiery Co., Ltd., Stratford, Ont.
Chipman-Holton Knitting Co., Hamilton, Ont.
Clinton Knitting Co., Clinton, Ont.
Excelsior Knitting Mills, Brussels, Ont.
Elias A. Brubacher, Baden, Ont.
F. E. Macklin, Berlin, Ont.
G. Upton Co., Alliston, Ont.
Garayt Knitting Co., Montreal, Que.
Goderich Knitting Co., Goderich, Ont.
Golden Grove Mills, Golden Grove, N.B.
Hamilton & Lewitt Knitting Co., Ltd., Amherstburg, Ont.
Hanover Woolen Mills, Hanover, Ont.
Hawthorne Mills, Carleton Place, Ont.
Hodgson, Sumner & Co., Montreal, Que.
Holeproof Hosiery Co., London, Ont.
Humphreys Unshrinkable Underwear Co., Ltd., Moncton, N.B.
J. B. McCormack, Strathcona, Alta.
John McMurchy, Huttonville, Ont.
John Nuhn, Flesherton, Ont.
Joseph Beaumont, Glen Williams, Ont.
Kingston Hosiery Co., Kingston, Ont.
Massey Knitting Co., Montreal, Que.
Mercury Mills, Ltd., Hamilton, Ont.
Melrose Knitting Co., Glen Williams, Ont.
Paton Mfg. Co., Sherbrooke, Que.
Penman's, Ltd., Paris, Ont.
Penman's, Ltd., St. Hyacinthe, Que.
R. M. Ballantyne, Ltd., Stratford, Ont.
R. Newbold & Sons, Montreal, Que.
Renfrew Knitting Co., Renfrew, Ont.
Reiner Bros. & Co., Wellesley, Ont.
Reliance Knitting Co., Ltd., Toronto, Ont.
Royal Knitting Co., Guelph, Ont.
Russel Mfg. Co., Ltd., Russel, Ont.
S. B. Lehman & Sons, Almir, Ont.
S. A. Rife & Co., Walkerton, Ont.
Scott Knitting Co., Ltd., Toronto, Ont.
Thomson Hosiery Co., London, Ont.
William Shea, Toronto, Ont.
Wallaceburg Knitting Co., Wallaceburg, Ont.
Wm. Marshall, Dunnville, Ont.

HOSIERY, Silk.

Niagara Silk Mills, Ltd., Brantford, Ont.
Holeproof Hosiery Co., London, Ont.
Mercury Mills, Ltd., Hamilton, Ont.
Reliance Knitting Co., Ltd., Toronto, Ont.
Penman's, Ltd., Paris, Ont.

HOTEL KITCHEN EQUIPMENT.

Burns, John & Co., Montreal, Que.
Gurney Foundry Co., Ltd., Toronto, Ont.
McClary Mfg. Co., Ltd., London, Ont.
Sparrow, Geo., & Co., Toronto, Ont.

HOUSES, Portable, Wooden.

British Columbia Mills, Timber & Trading Co., Vancouver, B.C.
Schultz Bros. Co., Ltd., The, Brantford, Ont.

HOUSES, Portable, Metal.

Canadian Metal Shelter Co., Winnipeg, Man.
Winnipeg Steel Granary & Culvert Co., Ltd., Winnipeg, Man.

HUBS, Bicycle and Sulky.

Morrow, John, Screw & Nut Co., Ltd., Ingersoll, Ont.

HUBS, Wood.

Heard & Co., St. Thomas, Ont.
Hore, F. W., & Son, Ltd., Hamilton, Ont.
Finlay, J., & Sons Co., Norwood, Ont.
McKillop, A., & Sons, Ltd., West Lorne, Ont.
McVean O. & W., Dresden, Ont.
Victoria Wheel Works, Galt, Ont.
Windsor Turned Goods Co., Ltd., Windsor, Ont.

HUCK.

Oxford Worsted Co., Ltd., Amherst, N.S.

HUCKABACK, a coarse linen towelling.

HULLERS, Clover.

Sawyer-Massey Co., Ltd., Hamilton, Ont.
Woon, Robt., & Co., Oshawa, Ont.

HUMIDIFIERS.

Canadian Buffalo Forge Co., Ltd., Montreal,

HUMIDORS, for Show Cases.

Pearce, Henry, Montreal, Que.

HUSKERS, Corn.

White, The George, & Sons Co., Ltd., London, Ont.

HYDRANTS.

Bertrand, La Cie., F. X., Mfr., Ltd., St. Hyacinthe, Que.
Brown Machine Co., Ltd., New Glasgow, N.S.
Calgary Iron Works, Ltd., The, Calgary, Alta.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Doherty Mfg. Co., Ltd., The, Sarnia, Ont.
Garth Company, The, Montreal, Que.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Kerr Engine Co., Ltd., The, Walkerville, Ont.
London Foundry Co., Ltd., The, London, Ont.
McAvity T., & Sons, Ltd., St. John, N.B.
McDougall, R., Co., Ltd., Galt, Ont.
Matheson, I., Co., Ltd. New Glasgow, NS
Mueller H,, Mfg Co, Ltd, Sarnia Ont
Selby & Youlden Ltd Kingston Ont
Starr Mfg. Co., Ltd., Dartmouth, N.S.
Terminal City Iron Works, Vancouver, B.C.
Vogel Co. of Canada, Ltd., Montreal, Que.
Westport Mfg. & Plating Co., Ltd., The, Westport, Ont.
Whitfield, The John, Co., Toronto, Ont.

HYDRANTS, Lawn.

Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Robertson, The James, Co., Ltd., Toronto, Ont.

HYDRO-CARBON.

Canadian Mineral Rubber Co., Ltd., Winnipeg, Man.
Reed, Geo. W., & Co., Ltd., Montreal, Que.

HYDROGEN.

Compressed Gas Co., Ltd., Vancouver, B.C.

HYDROQUINONE.

Merck & Co., Montreal.

I

ICE.—Though ice is now made in most countries artificially, there is a considerable export of natural ice from Norway and the United States. In Norway most of the ice is obtained from the Wenham lake. Switzerland and Italy also export ice.

ICE, Artificial.

Berlin Lion Brewery, Ltd., Berlin, Ont.
St. Mungo Canning Co., Ltd., New Westminster, B.C.
Wilson, The B.. Co., Ltd., Victoria, B.C.

ICE CREAM.

Brandon Creamery & Supply Co., Ltd., Brandon, Man.
City Dairy Co., Ltd., Toronto, Ont.
Crescent Creamery Co., Ltd., Winnipeg, Man.
Montreal Dairy Co., Ltd., Montreal, Que.
Neilson, Wm., Ltd., Toronto, Ont.
Ottawa Dairy, Ltd., Ottawa, Ont.
Pure Milk Co., Ltd., The, Hamilton, Ont.
Scotia Pure Milk Co., Ltd., Halifax, N.S.
Standard Bottling Co., Medicine Hat, Alta.

ICE CREAM MACHINERY and SUPPLIES.

(See Machinery, Ice Cream.)

ICELAND MOSS, a lichen which grows in all northern regions and is exported from Norway. It is often used as a food in the countries where it grows, but elsewhere only for invalids.

ICELAND SPAR, a form of calcite, which exhibits in a marked degree the phenomenon of double refraction. Crystals obtained at the Eski fiord, Iceland, are used in optical instruments.

ICINGS, Cake.

Barbour, G. E., Co., Ltd., St. John, N.B.

Canadian Cocoanut Co., Montreal, Que.
Codville Co., Ltd, The, Winnipeg, Man
Cowan Co., Ltd., The, Toronto, Ont.
Imperial Cocoa & Spice Co., Ltd., Hamilton, Ont.
Litster Pure Food Co., Ltd., Toronto, Ont.
McLarens, Ltd., Hamilton, Ont.
Puddington, Wetmore, Morrison, Ltd., St. John, N.B.
White Swan Spices & Cereals, Ltd., Toronto,
Young-Winfield, Ltd., Hamilton, Ont.

IGNATIUS BEANS, the seeds of a native of the Philippines, and cultivated in Cochin-China. Strychnine, of which they contain a large proportion, is extracted from them.

INCUBATORS and BROODERS.

Brett Mfg. Co., Ltd., Winnipeg, Man.
Collins Mfg. Co., Toronto, Ont.
Hamilton Ideal Mfg. Co., Ltd., Hamilton, Ont.
Lee Mfg. Co., Ltd., Pembroke, Ont

INDIAN CORN. (See CORN.)

INDIAN HEMP. (See DECCAN HEMP.)

INDIGO, a beautiful and very durable blue dye obtained from several plants. The best is yielded by leguminous plants of India, Central America and the West Indies. The best indigo comes from Bengal and Java. Next in uality is the indigo of Salvador, Guatemala, Caracas, and Manila. Good indigo is of a dark blue or purple colour, and when rubbed assumes a coppery lustre. Artificial indigo is made from coal-tar. Chinese indigo is a green dye extracted from the bark of buckthorns.

INGOTS, Aluminum.

Northern Aluminum Co., Ltd., Toronto, Ont.

INGOTS, Phosphor Bronze, Copper and Copper Tin, Etc.

Canada Metal Co., Ltd., Toronto, Ont.
Lumen Bearing Co. West Toronto, Ont.

INGOT STEEL, Open Hearth.

Dominion Iron & Steel Co., Ltd., Sydney, N.S.

INJECTORS, Automatic, Steam and Boiler.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Hamilton Brass Mfg. Co., Ltd., Hamilton, Ont.
McAvity, T., & Sons, Ltd., St. John, N.B.
Mitchell, The Robt., Co., Ltd., Montreal, Que.
Morrison, The Jas. Brass Mfg. Co., Ltd., Toronto, Ont.
Penberthy Injector Co., Ltd., Windsor, Ont.

INKS.—Writing ink should be fluid enough to leave the pen freely and should adhere to the fibre of the paper or the glaze. It should also retain its colour with age. Salts of iron mixed with vegetable substances containing tannic or gallic acid are the most generally satisfactory. Galls and sulphate of iron, with a little gum arabic, and a very small quantity of carbolic acid, make a good ink. Logwood is also used. Sugar, gum, or glycerine, are added to produce a copying ink, these materials protecting the ink from oxidization. Printing ink is rendered viscous by the addition of drying oils to lamp black. Lithographic ink is a soapy fluid containing fatty matter, which is absorbed into the stone. The printing ink settles on the parts where the lithographic ink has penetrated. Marking ink is composed of salts of silver, or platinum, and sometimes of aniline. Indian ink is a mixture of very pure and fine lamp-black with agar-agar, gum, or gelatine.

INK, Drawing.

Carter's Ink Company, Montreal, Que.
Dietzgen, Eugene, Co. of Ontario, Ltd., Toronto.

INK, for Duplicating Machines.

Canadian Typewriter Co., Montreal, Que.
Carter's Ink Company, Montreal, Que.
United Typewriter Co., Ltd., Toronto, Ont.
Wilson Carbon Paper Co., Ltd., Montreal.

INK, Printing and Lithographing.

Ault & Wiborg Co. of Canada, Ltd., Toronto,
Bush, Chas., Ltd., Toronto, Ont.
Canada Printing Ink Co., Ltd., Toronto, Ont.
Dominion Printing Ink & Color Co., Ltd., Toronto, Ont.
Manton Brothers, Toronto, Ont.
Mander Bros., Montreal, Que.

INK, Stamp and Stencil.

Carter's Ink Company, Montreal, Que.
Hamilton Stamp & Stencil Works, Hamilton, Ont.
Peerless Carbon & Ribbon Mfg. Co., Ltd., Toronto, Ont.
Reliance Ink Co., Ltd., Winnipeg, Man.

INK, Writing and Copying.

Alpha Chemical Co., Berlin, Ont.
Boston Baking Co., Montreal, Que.
Carter's Ink Co., Montreal, Que.
Domestic Specialty Co., Ltd., Hamilton, Ont.
Everett & Barron Co., Amherst, N.S.
Permanent Ink Co., Ltd., Hamilton, Ont.
Reliance Ink Co., Ltd., Winnipeg, Man.
Sultana Ltd., Montreal, Que.
Underwood, John, & Co., Toronto, Ont.
Waterman, L. E., & Co., Ltd., Montreal, Que.

INSECT POWDER.—The buds of Pyrethrum carneum and P. roseum, natives of the Caucasus and Persia, are when powdered very efficacious in destroying insects. The Dalmatian powder from P. cinerariafolium is considered superior. The flower-stalks are also reduced to a coarse powder for the use of dealers in furs and skins.

INSECTICIDES.

Alabastine Co., Paris, Ltd., Paris, Ont.
American Dressing & Sundry Co., Montreal,
Bug Death Chemical Co., Ltd., St. Stephen, N.B.
Canadian Stock Food Co., Ltd., Calgary, Alta.
Common Sense Mfg. Co., Toronto, Ont.
Parker-Whyte, Ltd., Winnipeg, Man.
Sapho Mfg. Co., Ltd., Montreal, Que.

INSOLES, Boot and Shoe.

Ahrens, Chas. A., Ltd., Berlin, Ont.
Barrie Tanning Co., Ltd., The, Barrie, Ont.
Blouin, F., Quebec, Que.
Duclos & Payan St. Hyacinthe, Que.

INSULATING MATERIALS.

Booth Felt Co., Ltd., The, Gananoque, Ont.
Canadian Flax Mills, Ltd., Guelph, Ont.
Canadian Mineral Rubber Co., Ltd., Winnipeg, Man.
Eastern Paper Co., Ltd., St. Basile Station, Portneuf Co., Que.
Eureka Mineral Wool & Asbestos Co., Toronto.
Imperial Varnish & Color Co., Ltd., Toronto.
Internatioanl Varnish Co., Ltd., Toronto, Ont.
Kent Bros., Kingston, Ont.
Pinchin, Johnson & Co., (Canada), Ltd., Toronto, Ont.
Plastics, Ltd., Toronto, Ont.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.

Standard Paint Co. of Canada, Ltd., Montreal.
Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
Walpole Rubber Co., Ltd., Montreal, Que.

INSULATORS, Glass.

Atlas Glass Works, Ltd., Montreal, Que.
Canadian General Electric Co., Ltd., Toronto
Dominion Glass Co., Ltd., Montreal, Que. and Toronto, Ont.

INSULATORS, Porcelain.

Canadian General Electric Co., Ltd., Toronto.
Canadian Porcelain Co., Ltd., Hamilton, Ont.
Crouse-Hinds Co. of Canada, Toronto, Ont.

INVERTS, Vitrified Clay.

Dominion Sewer Pipe Co., Ltd., Swansea, Ont.
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Standard Clay Products, Ltd., St. John's, Que.

IODINE, a non-metallic element used in medicine and photography. It is applied externally in the form of ointment or tincture, and iodide of potassium, iodide of iron, and red iodide of mercury are administered internally. Iodine is still obtained from kelp, but of late the European industry has found a formidable rival in the manufacture of iodine from Chilian saltpetre.

IPECACUANHA, a valuable medicine furnished by the root of the Ipecacuanha plant of the cinchona order. The largest quantity is sent down the Paraguay river from Matto Grosso. The plant is now cultivated in India and Ceylon. Ipecacunha is administered in powder and in the form of wine. Compound Ipecacunha powder is commonly known as Dover's powder.

IRIDIUM, a rare and very hard metal found in platinum ores and usually in association with osmium. Being very hard and unaffected by acids, it is used frequently as an alloy with platinum for contact points in telegraphy, and the parts of scientific instruments most liable to wear. With iridium and its compound with osmium gold pens are tipped. The sesquioxide furnishes a black and grey color for porcelain painters.

IRISH MOSS. (See CARRAGEEN MOSS.)

IRIS ROOT. (See ORRIS ROOT.)

IRON and STEEL.—Iron is one of the most widely distributed and most useful metals. The commoner iron ores are known as hematite, magnetite, limonite, carbonite, iron pyrites and arsenical pyrites. The great quantities of iron are made almost exclusively from the second first-mentioned kinds of iron ore. Iron pyrites contain a very high percentage of sulphur and are generally roasted for the sake of sulphur fumes which are used in the making of sulphuric acid. Large quantities of the cheaper pigments for paint purposes are made from hematite which produces a red oxide and limonite which produces a brown exide. Iron ore is found in most parts of the world but the chief producing countries are as follows: (These returns are for the year 1911, which is the latest date that complete returns are given for):—

	Long Tons.
United States	43,876,552
Germany	29,408,812
France	16,376,967
Great Britain	15,519,424
Spain	8,635,523
Sweden	6,056,868
Austria-Hungary	4,779,851
Newfoundland	1,171,992
Cuba	1,163,714
Greece	493,106
Tunis	397,638
Italy	367,900
India	366,180
Norway	217,051
Canada	187,807

While Canada possesses numerous iron deposits, comparatively few iron mines of consequence are now in operation. This is due to the fact that the iron industry of this country draws the most of its supplies from the cheaply mixed ores of Minnesota on the West and Newfoundland on the East.

The importation of iron ore into Canada during the fiscal year ending March 31st, 1914, aggregated 1,972,207 tons valued at $4,027,460. The ore produced from Canadian mines in the same year amounted to slightly less than 300,000 tons.

Pig-iron is the rough metal extracted from iron ore by fusion in blast furnaces. It contains from 2 to 5 per cent. of carbon, some silicon and often sulphur, phosphorus, etc. It is easily cast but is not malleable. There are several grades of pig-iron-gray, mottled or white in color, the last being crystalline and very hard, owing to the combination of carbon with the iron. Until 1889, Great Britain was the largest producer of pig-iron, but in that year was outstripped by United States, which has since then rapidly increased its output.

Steel is iron purified and hardened by combination with carbon. The old process is by heating bars of iron with a quantity of carbon in sealed troughs by which they become rough and porous and are known as blister steel. They are then hammered, rolled, and melted in crucibles to distribute the carbon equally and remove all the slag. The finest and hardest steel is thus produced, but, being very costly, its use is limited. Cast steel is made on a large scale by the Bessmer process in which the iron is melted in a converter lined with gannister, a kind of sandstone, and air is blown through it. The carbon is nearly all consumed, and the necessary amount is restored by adding a certain quantity of spiegeleisen or ferro-manganese. The Siemens-Martin, or openhearth process, is conducted in a different kind of furnace and the air plays over the molten metal instead of being forced through it. Certain ores only, such as the hematite, are adapted for this purpose, for phosphorus, when present, is not removed and the steel manufactured is too brittle for many purposes. By mixing the lining of the converter with lime or adding lime to the contents, a base is provided with which the phosphorus can unite, and this is called the "basic" process, while the "acid" process is that with the siliceous lining. In the United Kingdom about twice as much openhearth steel is manufactured as Bessemer steel, whereas in Germany and the United States, only about a third of open-hearth steel is produced, the ores in those countries being not well suited for the latter process. Nearly all the German steel and the greater part of that produced in the United States is basic, while in Great Britain acid steel is mostly made, being more in demand. In the United States and Germany a larger proportion of pig-iron is converted into steel than in the United Kingdom. Several metals are frequently added to steel which impart to it qualities desirable for certain special purposes. Manganese, besides being used in the manufacture to remove impurities, is added in the proportion of about 12 per cent., forming a very hard and ductile steel used for rock-crushing machinery, safes, etc. Armour plates contain 3 to 5 per cent. of nickel, sometimes with the addition of chromium, and boiler tubes are made with 25 to 30 per cent. of nickel. This steel is also used in electrical apparatus, having a high electrical resistance and a low temperature co-efficient. Tungsten and molybdenum combined with nickel or chromium make useful steels, and vanadium steel is claimed to be the best for motor-car construction.

The total production of pig-iron from Canadian blast furnaces in 1913 was 1,128,967 short tons valued approximately at $16,540,012. The total importations of iron and steel and manufactured articles from this metal, including all kinds of machinery, for the fiscal year ending March 31st, 1914, aggregated $119,321,754.

IRON, Charcoal Pig.

Standard Chemical, Iron & Lumber Co. of Canada, Ltd., Toronto, Ont.

IRON, Corrugated.

Campbell & Grill, Vancouver, B.C.
Canadian Metal Shelter Co., Winnipeg, Man.
Irwin, Thos. & Son, Hamilton, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Metallic Roofing Co. of Canada, Ltd., The, Toronto, Ont., and Winnipeg, Man.
Ormsby, A. B. Co., Ltd., Toronto, Ont.
Reed, Geo. W., & Co., Ltd., Montreal, Que.
Winnipeg Ceiling & Roofing Co., Winnipeg, Man.
Winnipeg Steel Granary & Culvert Co., Ltd., Winnipeg, Man.

IRON, Galvanized.

Lysaght, John, Ltd., Montreal, Que.
Sheet Metal Products Co. of Canada, Ltd., Winnipeg, Man.

IRON, Merchant Bar.

London Rolling Mill Co., Ltd., London, Ont.
Manitoba Rolling Mill Co., Ltd., Winnipeg, Man.
Peck Rolling Mills, Ltd., The, Montreal, Que.
Portland Rolling Mills, Ltd., St. John, N.B.
Starr Mfg. Co., Ltd., Dartmouth, N.S.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.

IRON, Pig.

Atikokan Iron Works, The, Port Arthur, Ont.
Canada Iron Corporation, Ltd., Londonderry, N.S., and Montreal, Que.
Canadian Furnace Co., Ltd., Port Colborne, Ont.
Dominion Iron & Steel Co., Ltd., Sydney, N.S.
Frankel Brothers, Toronto, Ont.
Lake Superior Corporation, The, Sault Ste. Marie, Ont.
Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Steel Co. of Canada, Ltd., Hamilton, Ont.

IRON WORK, Ornamental.

Alberta Ornamental Iron Co., Ltd., Redcliff, Alta.
Beaver Brass Mfg. Co., Ltd., The, Toronto, Ont.
British American Hardware Mfg. Co., Toronto.
British Columbia Iron, Wire & Fence Co., Vancouver, B.C.
Canada Wire & Iron Goods Co., Hamilton, Ont.
Canadian Ornamental Iron Co., Toronto, Ont.
Cummings, Brass, Iron & Wire Co., Ltd., Winnipeg, Man.
Dennis Wire & Iron Works, Ltd., London, Ont.
Estey Bros. Co., Montreal.
Hartley Iron Wire Works, Vancouver, B.C.
Hutchison & Sticht, Montreal, Que.
Latta, D. G., & Co., Ltd., Edmonton, Alta.
Meadows, Geo. B. Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Mount Royal Foundry Co., Ltd., Montreal, Que.
Owen Sound Wire Fence Co., Ltd., Owen Sound, Ont.
Partridge & Sons, Kingston, Ont.
Shipway Iron Bell and Wire Mfg. Co, Ltd., Toronto, Ont.
Tisdale Iron Stable Fittings Co., Ltd., Toronto.
Tuttle & Bailey Mfg. Co., Bridgeburg, Ont.
Watson, John & Son, of Montreal, Ltd., Montreal, Que.
Western Steel & Iron Co., Ltd., Winnipeg, Man.

IRONS, Sad, Electric (Tailors' and Machine.)

Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Flexible Conduit Co., Ltd., Guelph, Ont.
Hot Point Electric Heating Co., Toronto, Ont.
National Electric Heating Co., Ltd., Toronto.
Simplex Electric Heating Co., Belleville, Ont.

IRONS, Sad and Tailors' Hand.

Smart, The James Mfg. Co., Ltd., Brockville, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.

IRONS, Tuyere.

Belanger, A., Montmagny, Que.
Jardine, A. B., & Co., Hespeler, Ont.
Plessisville Foundry Co., Ltd., The, Plessisville, Ont.
Smart, The James Mfg. Co., Ltd., Brockville, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
Thompson Mfg. Co., Grand Bay, N.B.

IRONWOOD is a name given to the timber of several trees native of tropical countries. The wood is very strong, hard, heavy and tough, but difficult to season and liable to warp and check. There are two species which grow in Canada, namely, horn beam and "blue beech." Neither of these grow very large and are therefore not important as a lumber material. **(See WOOD.)**

ISINGLASS, originally the dried swimming bladders of the sturgeon, and exported almost exclusively from Russia. It has, however, been found that the bladders of other fish and also the ova yields equally good isinglass, and considerable quantities of these dried articles are exported from America and India. Isinglass is more readily extracted from them than from other material. It is used in confectionery, in lustring ribbons, cement, etc.

IVORY is the dentine of the teeth of several different animals. The best and most plentiful is derived from elephants' tusks, especially the tusks of the African elephant. The tusks seldom exceed 180 pounds in weight. Those under 20 pounds are called scrivelloes. Hippopatamus teeth yield very good ivory which does not lose its color, but being hollow for a great part of their length, furnish pieces of no great size. Mammoth ivory obtained in Siberia is brittle. Walrus, narwhale, sperm whale, etc., furnish ivory of inferior quality. The supply of ivory has on the whole remained fairly constant, but it cannot be expected to continue much longer as the African elephant is becoming scarce. Celluloid is to a limited extent a substitute, but it has not the waxy appearance of ivory and will not take so fine a polish. Vegetable ivory serves for small articles and an artificial material called lactite is manufactured from milk, borax and vitriol. The importations of ivory into Canada in 1914 were $164,364.

IXTLE, or Tampico fibre, extracted in Mexico chiefly from Bromelia sylvestris, though some is obtained from various kinds of agave. It is much stronger than hemp, and is used for making ropes, &c.

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JABORANDI, the dried leaflets of a bush that grows in Brazil. They are used in medicine. In South America the name is given also to other species.

JACARANDA, the hard, heavy brown wood of Jacaranda Brasiliana and other species indigenous in South America. The leaves of some species are administered as blood purifiers. The name rosewood is sometimes applied to this timber.

JACKETS, Ladies', Fur.

Alexandor, A. J., Montreal, Que.
Allan, A. A., & Co., Ltd., Toronto, Ont.
Ansley-Dineen Hat & Fur Co., Ltd., Toronto.
Brandon Fur & Clothing Mfg. Co., Brandon, Man..
Brenton, The Albert J., Co., Ltd., Winnipeg, Man.
Brereton & Steward, Toronto, Ont.
Brodey-Draimin Fur Co., Toronto, Ont.
Coristine Jas., & Co., Ltd., Montreal, Que.
Dechene & Poulin, Quebec, Que.
Eaton, The T., & Co., Ltd., Toronto, Ont.
Fairweathers, Ltd., Toronto, Ont.
Gillespie Fur Co., Ltd., The, Toronto Ont.
Holt, Renfrew & Co., Quebec, Que.
Laliberte, J. B., Quebec, Que.
McComber & Cummings, Montreal, Que.
Magee's, D., Sons, Ltd., St. John, N.B.
Orr, Wm. G., & Co., Toronto, Ont.
Sellers-Gough Fur Co., Ltd., Toronto, Ont.
Thompson Mfg. Co., Ltd., Toronto, Ont.

JACKETS, Metal Furnace.

Sudbury Construction & Machinery Co., Ltd., The, Sudbury, Ont.

JACKS, Hoisting, Lifting and Screw.

Bell, B., & Son Co., Ltd., St. George, Ont.
Moris, The Herbert Crane & Hoist Co., Ltd., Toronto, Ont.
Muskoka Foundry Co., Bracebridge, Ont.
Norton, A. D., Coaticook, Que.
Smart, The James Mfg. Co., Ltd., Brockville, Ont.
Templeton, Kenly Co., Ltd., Toronto. Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.

JAMS AND JELLIES.

British Canadian Canners, Ltd., Hamilton, Ont.
Canada Preserving Co., Ltd., The, Hamilton, Ont.
Crothers, W. J. Co., Ltd., Kingston, Ont.
Dominion Canners, Ltd., Hamilton, Ont.
Dominion Coffee & Spice Mills Co., Montreal.
Empress Mfg. Co., Ltd., Vancouver, B.C.
Essex Canning & Preserving Co., Ltd., Essex, Ont.
Kootenay Columbia Preserving Works, Nelson, B.C.
Kootenay Jam Co., Ltd., The, Mission City, B.C.
Labreque & Pellerin, Montreal, Que.
Lytle, The T. A., Co., Ltd., Toronto, Ont.
McCormick Mfg. Co., Ltd., The, London, Ont.
McLaughlin & Sons Co, Ltd, Owen Sound, Ont.
National Canners, Ltd., Hamilton, Ont.
Oshawa, Canning Co., Ltd., The, Oshawa, Ont.
Port Dover Evaporating Co., Port Dover, Ont.
Quebec Preserving Co., Quebec, Que.
Smith, E. D. & Son, Ltd., Winona, Ont.
St. Louis Preserving Co., Ltd., The, Montreal, Que.
Stuart, Ltd., Sarnia, Ont.
Taylor, W. A., Winnipeg, Man.
Upton, The, T. Co., Ltd., Hamilton, Ont.
Windsor J. W., Montreal, Que
Wood, J. T., Brussels, Ont.

JACONET, a plain cotton cloth of medium thickness and weight.

JADE, nephrite, a variety of hornblende much prized in China as a material for personal and other ornaments. Mines of nephrite are regularly worked in Chinese Turkestan, and the mineral also occurs in New Zealand. Much of the jade sold in China is really jadeite, a variety of pyroxene, obtained in Burma, whence about 4,000 cwts. are exported.

JAGGERY, an Indian name for coarse palm sugar.

JAGUAR. (See **OUNCE**.)

JALAP, a purgative medicine extracted from the root of Ipomœa purga of the order Convolvulaceæ, a native of Mexico. It derives its name from the Mexican city Jalapa. Besides the roots the resin extracted from them is exported.

JAPANS,

Ault & Wiborg Co. of Canada, Ltd., Toronto, Ont.
Berry Bros., Walkerville, Ont.
Brandram-Henderson, Ltd., Montreal, Que.
British America Paint Co., The, Victoria, B.C.
Canada Paint Co., Ltd., The ,Winnipeg, Man.
Comercial Oil Co., Ltd., Hamilton, Ont.
Crescent Oil Co., The, Hamilton, Ont.
Crown Oil Refining Co., Ltd., Hamilton, Ont.
Dougall Varnish Co., Ltd., The, Montreal, Que.
Glidden Varnish Co., Toronto, Ont.
Harland Wm., & Son, Toronto, Ont.
Holland Varnish Co., Ltd., Montreal, Que.
Imperial Varnish & Color Co., Ltd., Toronto,
International Varnish Co., Ltd., Toronto, Ont.
Jamieson, Jas. W., & Co., Montreal, Que.
Jamieson, R. C., & Co., Ltd., Montreal, Que.
Langmuir, Jas & Co., Ltd., Toronto, Ont.

McColl Bros. & Co., Toronto, Ont.
Moore, Benjamin, & Co., Toronto, Ont.
Muirhead, A., Co., Ltd., Toronto, Ont.
Ramsay, A., & Son Co., Montreal, Que.
Scarfe & Company, Brantford, Ont.
Sherwin-Williams Co. of Canada, Ltd., Montreal. Que.
Stephens, G. F., & Co., Ltd., Winnipeg, Man.

JAPANNED GOODS. (See **LACQUERED WARE.**)

JAPANNED WARE.

Davidson, The Thos., Mfg. Co., Ltd., Montreal.
McClary Mfg. Co., London, Ont.
Sheet Metal Products Co of Canada, Ltd., Toronto, Ont.

JAPAN WAX, a varnish obtained from Rhus vernicifera, much used in Japan.

JARRAH WOOD. (See **EUCALYPTUS.**)

JARS, Fruit.

Atlas Glass Works, Ltd., Montreal, Que.
Dominion Glass Co., Ltd., Montreal, Que. Toronto, Ont., and Wallaceburg, Ont.
Schram Automatic Sealer Co., Waterloo, Ont.

JASMINE, the jasmine, a native of Asia, is cultivated in the south of Europe. An essential oil is distilled from the flowers, which is, however, too dear to meet with a large demand, and the oil of jasmine is generally Ben oil, sometimes scented with jasmine.

JAWAR. (See **DURRA.**)

JEAN, a twilled cotton cloth.

JERKED BEEF, salted and dried strips of beef in which there is a considerable trade in South America and the West Indies. It is not appreciated in Europe.

JERSEYS.

Ballantyne, R. M., Ltd., Stratford, Ont.
Hewson Pure Wool Textiles, Amherst, N.S.
Knit-to-Fit Mfg. Co., Montreal, Que.
Mitchell Woollen Co., Ltd., Mitcehll, Ont.
Monarch Knitting Co., Ltd., Dunnville, Ont.
Penman's, Ltd., Paris, Ont.
Reliance Knitting Co., Ltd., Toronto, Ont.
Scott Knitting Co., Toronto, Ont.
Turnbull, The C., Co., of Galt, Ltd., Galt, Ont.
Warren Bros., Toronto, Ont.

JET, a hard kind of lignite which takes a good polish and is made into articles of mourning jewellery. It is found at Whitby, in England, in the Department of the Aude, France, in several parts of Germany and Hungary, and at the town of Villaviciosa in the Asturias, Spain. Imitation jet is made of glass and vulcanised India-rubber.

JEWELLERY, the chief centres of high-class jewellery manufacture are Clerkenwell, in London, Paris, Geneva, Vienna, and New York. Malta and Venice are noted for their filigree, and Naples for coral ornaments. Cheap jewellery, especially articles made of imitation gold, electro-plated metal, rolled gold, &c., is manufactured in Birmingham, Germany, France, and to some extent in all countries.

JEWELRY, Gold and Silver.

Baker, T. H., & Co., Ltd., London, Ont.
Bergman, H. R. Co., Ltd., Halifax, N.S.
Birks, Henry, & Sons, Ltd., Montreal Que.
Campbell, S. A, Winnipeg Man.
Canadian Jewellers, Ltd., Montreal, Que.
Capp, The T. W., Co., Toronto, Ont.
Caron Bros., Montreal, Que.
Dingwall D. R., Ltd., Winnipeg, Man.
Eastwood, James, New Glasgow, N.S.
Eaton, The T., Co., Ltd., Toronto, Ont.
Eaves Bros., Montreal, Que.
Ellis, P. W., & Co., Ltd., Toronto, Ont.
Fremes, S. & Co., Montreal, Que.
Foster, T W., & Brother, Co., Kingston, Ont.
Lees, Geo. H., & Co., Ltd., Hamitlon, Ont.
Levy Bros, Ltd., The, Hamilton, Ont.
North American Jewelry Co., Ltd., St. John's, N.B.
Noble, W. R., & Co., Ltd, Winnipeg, Man
Pearce, Henry, Montreal, Que.
Percy, L. D., Winnipeg, Man.
Peerless Jewelry Co., Sherbrooke, Que.
Porte & Markle, Winnipeg, Man.
Riexinger & Heinz Co., Toronto, Ont.
Ryrie Bros., Ltd., Toronto, Ont.
Saunders, H. & A., Toronto, Ont.
Silversmith Co., Ltd., The, Toronto, Ont
Smith, Patterson Co., Ltd., The, Montreal, Que.
Standard Jewelry Co., Ltd., Sherbrooke, Que.
Wanless, John, & Co., Toronto, Ont.
Zock, J. J., & Co, Ltd, Toronto, Ont

JEWELRY, Enameled.

Canadian Jewellers, Ltd., Montreal, Que.
Caron Bros., Montreal, Que.
Ellis, P. W., & Co., Ltd., Toronto, Ont.
Lees, Geo. H., & Co., Ltd., Hamitlon, Ont.
Zock, J. J., & Co, Ltd, Toronto, Ont

JEWELS Regalia and Society.

Canadian Jewellers, Ltd., Montreal, Que.
Capp, The T. W., Co., Toronto, Ont.
Caron Bros., Montreal, Que.
Dingwall D. R., Ltd., Winnipeg, Man.
Dominion Regalia Co., Ltd., Toronto, Ont.
Ellis, P. W., & Co., Ltd., Toronto, Ont.
Lees, Geo. H., & Co., Ltd., Hamitlon, Ont.
Mortimore & Blackeby, Toronto, Ont.
Zock, J. J., & Co, Ltd, Toronto, Ont
Canada Tool & Specialty Co., Ltd., New Glasgow, N.S.
Hamilton Gear & Machine Co., The, Toronto,
Peterborough Machine & Lubricator Co., Ltd., Peterborough, Ont.
Stevens Co. of Galt, Ltd., The, Galt, Ont.

JEW'S EAR, a fungus, one of the Hymenomycetes. It was formerly valued as an astringent and is still sold by chemists. Some species are eaten in China and Japan.

JIPIJAPA.—Panama hats are sometimes called Jipijapa hats after a town in Ecuador noted for the manufacture.

JOB'S TEARS, an Indian grass, bears seeds which are used as beads in rosaries, necklaces, etc. The plant is also cultivated as a cereal.

JOINTERS, Automatic Glue.

Canada Machinery Corporation, Ltd., Galt, Ont
Canadian Linderman Co., Ltd., Woodstock, Ont.

JONQUIL, an essential oil, is extracted from the flowers of the yellow narcissus for the composition of perfumes.

JUDAS TREE grows in South Europe and Asia, and in North America. The green-veined wood is esteemed by cabinetmakers, and the seeds form a substitute for capers.

JUJUBE.—The real jujube is the fruit of the thorny shrub or small tree, of which there are about fifty spicees growing in the tropical and sub-tropical countries of Asia and America and in the south of Europe. The chief are the common jujube, the Christ's thorn, the Indian jujube, with large fruits, and the lotus. The dried fruits are an article of commerce. The jujubes of shops are a composition of gum and sugar.

JUNIPER is a small tree which grows in Canada and United States. It produces a berry from which oil is extracted for flavoring gin. When the berries are ripe the oil turns into turpentine. The wood, which enters slightly into commerce, is generally known as red cedar or aromatic cedar. It is used mainly for moth-proof chests on account of its aromatic odour. **(See WOOD.)**

JUTE.—The jute plant is cultivated in China and India, requiring a deep, soft soil, and a moist climate with high temperatures. The Indian production has received principal attention and is the chief source of the world's supply. The plant is cut about three months after sowing and the stems are stooked in the field and left to wither for a period. They are then retted in pools similar to the treatment given to flax until the fibre separates from the woody core. The stalks are then beaten, and stripped of their fibre which is then dried, sorted and packed. The principal place of manufacture is in Dundee, but the manufacture is carried on to some extent in India, continental countries and the United States. The fibre is used chiefly for manufacture into bagging, sacking and yarn for the backing of carpets, floor-cloths, etc. Also for upholstery packing, etc. The imports of jute and jute goods into Canada during the fiscal year ending March 31, 1914, were as follos: Carpetings, mattings, etc., $66,284; horse clothing $3,039; tapestry 1,187; jute cloth 46,843,745 yards, valued at $2,758,283; jute canvas 29,510,507 yards valued at $2,092,703; jute butts and jute 4,225 cwt., valued at $34,231; jute and hemp yarn 2,717,594 pounds, valued at $283,736.

JUTE GOODS, Canvas, Bockrams, Etc

Kidd-Rutherford Co., Ltd., Montreal.

K

KAFFIR CORN. (See DURRA.)

KAINITE, a compound of chloride of potash and sulphate of magnesia, found in the Stassfurt salt mines, Prussian Saxony, and at Kalusz in Galicia. It is used as a manure.

KAISSA-PYTA, a pressed cake of apricot pulp made in Cyprus.

KALI, the Arabic name for an alkali from which the chemical symbol for potash is derived. In commerce it denotes a soluble tartrate of potash.

KALSOMNIE.

Alabastine Co., Paris, Ltd., Paris, Ont.
Eastern Paint Co., Ltd., The, Halifax, N.S.
Moore, Benjamin, & Co., Ltd., Toronto, Ont.
Ramsay, A., & Son, Co. Montreal, Que.

KAMALA, a powdery substance in the fruit capsules of a tree which grows in south and east Asia. The powder, shaken or rubbed off the seeds, is used as a dye. It is also applied medicinally.

KANGAROO.—The skins of kangaroos and wallabies are exported from Australia, and when properly curried become a very tough and pliable leather suitable for light boots.

KAOLIN, or China clay. Weathered potash felspar, or orthoclase, when occurring in large masses free from quartz and mica is dug out for the manufacture of porcelain. It is named after the Kao-ling or "high ridge" in the province of Kiang-si, China, and is also found in Cornwall, France, Germany, and the United States of America and Canada. Kaolin is used to a considerable extent by papermakers. **(See FELDSPAR.)**

KAPOK, a name used by the Dutch for the fibre of Eriodendron anfractuosum. **(See SILK-COTTON.)**

KAURI. (See COWRY.)

KAURI GUM, the resin obtained in New Zealand and Australia as a fossil and also from living trees. **(See DAMMAR.)**

KEGS, Paint.

American Can Co., Montreal, Que.
Keenan Woodenware Mfg. Co., Ltd., Owen Sound, Ont.

KEGS, Nail and Spike.

Landreville, J., & Son, Toronto, Ont.
Trenton Cooperage Mills, Ltd., Trenton, Ont.
Starke Cooperage Co., Montreal, Que.

KEGS, Pickle, Syrup, Etc.

Cargill, H., & Son, Cargill, Ont.
Keenan Woodenware Mfg. Co., Ltd., Owen Sound, Ont.
London & Petrolia Barrel Co., London, Ont.

KEGS, Steel.

Beath, W. D., & Son, Ltd., Toronto, Ont.

KEKUNE OIL, the oil extracted from the seeds of Aleurites triloba. **(See BANKUL OIL.)**

KELP, the ashes of burned seaweed. When burned they are reduced to about one-twentieth of their original weight or less. From the crude kelp, chlorate of potash, and iodine are obtained, paraffin oil, naphtha, and sulphate of ammonia. The manufacture of kelp is carried on in Great Britain and France, but has fallen off owing to competition with other sources for the chemicals it yields. **(See also BARILLA.)**

KERMES, several species of Coccus, are collected from the oak for use in dyeing. The female insects contain the same coloring matetr as cochineal, but in a far smaller proportion. Hence their use has almost died out except for dyeing domestic manufactures in Spain, Morocco, Algeria, and other Mediterranean countries where the insect abounds. Kermes is also the name of a red mineral, a compound of sesquisulphide and sesquioxide of antimony, which was formerly employed in medicine.

KEROSENE.—Paraffin, petroleum, and shale oils sold for burning are known by this name in America, India, China, and the British colonies.

KERSEY, or Kerseymere, a woollen cloth woven as a twill. Its upper surface shows a diagonal rib.

KERSEY CLOTH. (See Cloth).

KETCHUP, or Catsup, a sauce with which soups are flavoured. The ketchups in common use are made from walnuts, mushrooms, or tomatoes.

KETTLES, Copper and Brass.

Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Burns, John, & Co., Montreal, Que.
Chadwick Brass Co., Ltd., Hamilton, Ont.
Fletcher Mfg. Co., Ltd., Toronto, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.

KETTLES, Steam Jacket.

Allan, R. Geo., Toronto, Ont.
Fletcher Mfg. Co., Ltd., Toronto, Ont.
Mitchell, The Robt., Co., Ltd., Montreal, Que.

KETTLES, Tea.

Aubry, A., & Fils, Montreal, Que.
Chadwick Brass Co., Ltd., The, Hamilton, Ont.
Farand & Delorme, Ltd., Montreal, Que.
McClary Mfg. Co., Ltd., London, Ont.
Sheet Metal Products Co of Canada, Ltd., Toronto, Ont.
Smart, The James Mfg. Co., Ltd., Brockville, Ont.

KEY BLANKS, Lock.

Beaver Brass Mfg. Co., Ltd., Toronto, Ont.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Springer Lock Co., Ltd., Belleville, Ont.

KEY TAGS.

Toronto Stamp & Stencil Works, Ltd., Toronto.

KEYS.

Beaver Brass Mfg. Co., Ltd., Toronto, Ont.
Canadian Yale & Towne. Ltd., St. Catharines, Ont.

KHAS-KHAS. (See **KUSHUS.**)

KHAT, or Abyssinian tea, a large shrub indigenous to East Africa an Arabia, but cultivated chiefly in Yemen. Some is carried to Aden.

KID SKINS, used for making gloves.

KIDDERMINSTER, a two-ply carpet without a pile. The pattern, which is most distinct on the right side, appears on the wrong side in the other colour. This is the oldest form of machine-made carpet. Union Kidderminster carpets have cotton warps.

KIESELGUHR.—This German name is commonly given to diatomaceous earth, which, saturated with nitro-glycerine, forms dynamite. Its chief use at the present time, however, is as a non-conductor of heat. It is light, is not affected by comparatively high temperatures, and is comparatively cheap. It is used to line blast-furnaces, as jackets for boilers and covers for steampipes, &c., and for these purposes is sometimes made into bricks. Kieselguhr occurs in Scotland and Ireland, at Oberohe in Prussia, near Berlin, in Nova Scotia, the United States and Australia. In the United Kingdom about 3000 tons are used annually, part obtained from Aberdeenshire, and the rest from Germany and Norway.

KILNS.

Canadian Sirocco Co., Ltd., Windsor, Ont.
MacKinnon Holmes & Co., Ltd., Sherbrooke, Que.
Sheldon's, Ltd., Galt, Ont.

KIMONAS AND DRESSING GOWNS.

Allen Mfg. Co., Ltd., Toronto, Ont.
Eclipse Whitewear Co., Ltd., Toronto, Ont.
Kassab, The G. & S., Kimona Mfg. Co., Montreal, Que.
Klein, S., Ltd., Montreal, Que.
McKay Bros., Ltd., Toronto, Ont.
Martin & Smith Co., Ltd., Toronto, Ont.
Telford Bros. Garment Co., Rock Island, Que.

KINDERGARTEN SETS, Wooden.

Canadian Rattan Chair Co., Ltd., Victoriaville, Que.
Danville Chair & Specialty Co., Ltd., Danville, Que.
Gendron Mfg. Co., Ltd., Toronto, Ont.

KING OF BITTERS, a name for **KREAT.**

KINGWOOR, a beautiful cabinet wood from South America.

KINO, the dried sap of several trees, natives of India and Australia, which contains tannic acid, and is therefore a valuable astringent. The best kind is the kino of Malabar. In India the substance is used to dye textiles yellowish-brown (nankeen). See also **SEASIDE GRAPE.**

KIP, the hide of a calf or small ox. The small ox-hides from India are also called kips.

KIPPERS, smoked or red herrings, split-open...

KIRSCHWASSER, a liqueur distilled from cherries. The kernels give it a strong flavour of bitter almonds. It is made chiefly in Switezrland, the Black Forest, and Alsace.

KITT FOX, a grey fox of North America. The skin is made into fur articles.

KITTUL, the fibre obtained from the leaves of Caryota urens, an Indian palm. Brushes and fishing lines are made of it. It is also called Indian gut.

KNITTED GOODS.

Calgary Knitting Co., Calgary, Alta.
J. B. McCormack, Strathcona, Alta.
Pride of the West Knitting Mills, Vancouver, B.C.
Vancouver Knitting Co., Vancouver, B.C.
Columbia Knitting Mills, Vancouver, B.C.
S. Colman, Winnipeg, Man.
H. Katz & Co., Winnipeg, Man.
Leadley Mfg. Co., Ltd., Winnipeg, Man.
Northland Knitting Co., Winnipeg, Man.
Northwest Knitting Co., Winnipeg, Man.
Stobarts', Ltd., Winnipeg, Man.
Golden Grove Milils, Golden Grove, N.B.
Humphreys' Unshrinkable Underwear Co., Moncton, N.B.
Newfoundland Knitting Mills, Ltd., St. John's, Nfld.
Nova Scotia Underwear Co., Eureka, N.S.
Arthur McPherson, Rocklin, N.S.
Stanfield's, Ltd., Truro, N.S.
Reid-Rayner Knitting Mills, Tryon, P.E.I.
G. Upton Co., Alliston, Ont.
S. B. Lehman & Sons, Almira, Ont.
Almonte Knitting Co., Almonte, Ont.
Alton Knitting Mills, Alton, Ont.
Beaver Knitting Mills, Alton, Ont.
Alex. Dick, Alton, Ont.
Hamilton & Lewitt Knitting Co., Amherstburg, Ont.
Boyd, Caldwell & Co., Ltd., Appleton, Ont.
Arkona Woolen Mills, Arkona, Ont.
Elias A. Brubacher, Baden, Ont.
F. E. Macklin, Berlin, Ont.
Durham Glove Works, Bowmanville, Ont.
Bird Woolen Co., Ltd., Bracebridge, Ont.
Best-Knit, Ltd, Brampton, Ont
John McMurchy & Sons Brampton, Ont
Niagara Silk Mills, Ltd., Brantford, Ont.
Excelsior Knitting Mills Ltd., Brussels, Ont.
Bates and Innes, Ltd., Carleton Place, Ont.
Hawthorne Mills, Carleton Place, Ont.
Chesley Woolen Mills, Chesley, Ont.
Est, of John Scott, Clifford, Ont.
Clinton Knitting Co., Clinton, Ont.
Sovereign Mitt, Glove & Robe Co., Delhi, Ont.
S. Leonard & Sons, Dundas, Ont.
A. S. Parker, Dundas, Ont.
Erie Knitting Co., Dunnville, Ont.
Wm. Marshall, Dunnville, Ont.
Monarch Knitting Co., Dunnville, Ont.
  St. Thomas Branch, St. Thomas, Ont.
  St. Catharines Branch, St. Catharines, Ont.
John Nuhn, Flesherton, Ont.
Galt Knitting Co., Galt, Ont.
Galt Robe Co., Galt, Ont.
Newlands & Co., Ltd., Galt, Ont.
The C. Turnbull Co. of Galt, Ltd., Galt, Ont.
H. T Arnold & Sons, Georgetown, Ont
Joseph Beaumont, Glen Williams, Ont.
Melrose Knittinfi Co., Glen Williams, Ont.
Goderich Knitting Co., Goderich, Ont.
Colonial Knitting Co., Guelph, Ont.
Royal Knitting Co., Guelph, Ont.
Canadian Knitting Co., Hamilton, Ont.
Chipman-Holton Knitting Co., Hamilton, Ont.
  Welland Branch. Welland, Ont.
J. R. Moodie & Sons, Ltd., Hamilton, Ont.
Mercury Mills, Ltd., Hamilton, Ont.
Peerless Underwear Co., Ltd., Hamilton, Ont.
Zimmerman Knitting Co., Ltd., Hamilton, Ont.
Hanover Woolen Co., Hanover, Ont.
J B. Morrison, Hawkesbury, Ont.
R. Forbes Co., Ltd., Hespeler, Ont.
Schauss & McTearmen, Hespeler, Ont.
John Brown, Horning's Mills, Ont.
John McMurchy, Huttonville, Ont.
Thomas Waterhouse & Co., Ltd., Ingersoll, Ont.
D. Graham Sons, & Co., Inglewood, Ont.
Kingston Hosiery Co., Kingston, Ont.
E. Hood & Son, Lindsay, Ont.
Perfect-Knit Mills, Ltd., Listowel, Ont.
Holeproof Hosiery Co. of Canada, London, Ont.
Thomson Knitting Co., London, Ont.
O'Hare & Sons, Midland, Ont.
A. Burritt & Co., Mitchell, Ont.
Mitchell Woolen Co., Ltd., Mitchell, Ont.
Visor Knitting Co., Ltd., Niagara Falls, Ont.
Page-Le Boeuf Co., Ltd., Ojibwa, Ont.
Dods Knitting Co., Ltd., Orangeville, Ont.
Schofield Knitting Co., Ltd., Oshawa, Ont.
H. C. Banks, Owen Sound, Ont
Penman's, Ltd., Paris, Ont.
  Thorold Branch, Thorold, Ont.
  Watson Mfg. Co., Brantford, Ont.
  Almonte Branch, Almonte, Ont.
  Port Dover Branch, Port Dover, Ont.
  Coaticook Branch, Coaticook, Que.
  St. Hyacinthe Branch, St. Hyacinthe, Que.
T. A. Code, Perth, Ont.
Renfrew Knitting Co., Renfrew, Ont.
Russel Mfg. Co., Russel, Ont.
Allan Weber, Sheguiandah, Ont.
St. Catharines Silk Mills, Ltd., St. Catharines, Ont.
Warren Bros., St. Catharines, Ont.
Avon Hosiery Co., Ltd., Stratford, Ont.
R. M. Ballantyne, Ltd, Stratford, Ont
Williams-Trow Knitting Co., Stratford, Ont.
James Butler, Strathroy, Ont.
Allen Bros, 813 Girard St. E., Toronto, Ont.
Dominion Knitting Co., 1988 Dundas, St., Toronto, Ont.
T. Eaton, Co., Ltd., Toronto, Ont.
E. Hood, 2016 Dufferin St., Toronto, Ont.
R. G. Long & Co., Ltd., 439 Wellington St., Toronto, Ont
J. Massenger, 181 William St., Toronto, Ont.
Olympic Mfg. Co., 64 Colborne St., Toronto, Ont.
A. T. Reid Co, Ltd., 266 King St. W., Toronto,
Reliance Knitting Co., Ltd., Cor. King & Bathurst Sts., Toronto, Ont.
Frank W. Robinson, Ltd., 49 Bathurst St., Toronto, Ont.
Scott Knitting Co., 24 Ryerson Ave., Toronto.
William Shea, 1041 Gerrard E., Toronto, Ont.
Joseph Simpson & Sons, Ltd., Toronto, Ont.
Sterling Neckwear Co., 468 King W., Toronto
Teas-Knit Co, 917 Landsdowne Ave., Toronto.
Toronto Hosiery Co., 1105 Queen W., Toronto.
Thos. Warren, 359 Spadina Ave., Toronto, Ont.
York Knitting Mills, 993 Queen W., Toronto.
S. A. Rife & Co., Walkerton, Ont.
Wallaceburg Knitting Co., Wallaceburg, Ont.
Reiner Bros. & Co., Wellesley, Ont.
A. J. Gillies Mfg. Co., West Toronto, Ont.
Harvey Knitting Co., Woodstock, Ont.
Oxford Knitting Co., Woodstock, Ont.
George Hanson, Hull, Que.
Acme Glove Works, Ltd., Marieville, Que.
Garayt Knitting Co., 1651 St. Lawrence Blvd., Montreal, Que.
Hodgson, Sumner & Co., Montreal, Que.
Hudson Bay Knitting Co., Montreal, Que.
Knit-to-Fit Mfg. Co., 322 Papineau Ave., Montreal, Que.
Massey Knitting Co., 620 Beaudry St., Montreal, Que.
Odias Morin, 428 Rachel St. E., Montreal.
Moulton Mfg. Co., 236 Craig St., Montreal.
R. Newbold & Son,871 St. Denis St., Montreal.
Perfectknit Mfg. Co., 591 St. Paul St., Montreal.
Regent Knitting Mills, 18A Pine Ave W., Montreal, Que.
Wm Turner, 319 Notre Dame W., Montreal.
Shawinigan Knitting Co., Shawinigan Falls, Que.
Julius Kayser & Co., Sherbrooke, Que.
Paton Mfg. Co., Sherbrooke, Que.

KNITTED GOODS HOSIERY. (See under Hosiery.)

KNIVES, Hay.

Bedford Mfg. Co., The, Bedford, Que.
Canada Axe & Harvest Tool Mfg. Co., Ltd., Montreal, Que.
Welland Vale Mfg. Co., Ltd., The, St. Catharines, Ont.

KNIVES, Machine.

Atkins, E. C., & Co., Hamilton, Ont.
Disston, Henry, & Sons, Ltd., Toronto, Ont.
Hay, The Peter, Knife Co., Ltd., Galt, Ont.
Radcliff Saw Mfg. Co., Ltd., The, Toronto, Ont.
Simonds-Canada Saw Co., Ltd., Montreal, Que.
Whitman & Barnes Mfg. Co., St. Catharines, Ont.
Walters, H., & Sons, Hull, Que.

KNIVES, Paper Cutting and Veneer Cutting, Woodworking, Etc.

Atkins, E. C., & Co., Hamilton. Ont.

Hay, The Peter, Knife Co., Ltd., Galt, Ont.
Simonds-Canada Saw Co., Ltd., Montreal, Que.
Whitman & Barnes Mfg. Co., St. Catharines, Ont.

KNOBS, Door.

Belleville Hardware & Lock Mfg. Co., Ltd., Belleville, Ont.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Hahn Brass Co., Ltd., The, New Hamburg, Ont.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
National Hardware Co., Ltd., Orillia, Ont.
Peterborough Lock Mfg. Co., Ltd., The, Peterborough, Ont.
Stratford Brass Co., Ltd., Stratford, Ont.

KNOBS, Furniture.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Hahn Brass Co., Ltd., The, New Hamburg, Ont.
Knechtal, The S., Wood Turning Co., Southampton, Ont.
Stratford Brass Co., Ltd., Stratford, Ont.

KNOBS, Glass.

Belleville Hardware & Lock Mfg. Co., Ltd., Belleville, Ont.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.

KODAKS.

Canadian Kodak Co., Ltd., Toronto, Ont.

KOHL - RABI, a variety of turnip in which the stem swells out just above the ground. The leaves spring from the enlargement, which is given as food to cattle.

KOKUM BUTTER, a fatty matter extracted from the seeds of Garcinia purpurea, used in India to adulterate Shea Butter, and in England in the preparation of pomade.

KOLA NUTS, or Guru Nuts, the seeds of a tree which grows in Africa from the Gambia to Angola and Mozambique, and has been introduced into Mauritius, the West Indies, and South America. The nut is much prized by the natives for its tonic properties, and is imported into Europe, where it is made into chocolate, paste and aerated water. Containing about 2 per cent of theine, it certainly acts as a stimulant.

KOLINSKI, the trade name for the skin of the Tatar marten, brought from Siberia. The tails supply excellent material for artists' brushes; and the fur, reddish yellow in colour, is used as lining, and when dyed, as imitation sable.

KOUMISS, a fermented beverage made by the Kalmucks from mares' milk. It is now sometimes made in Western Europe, being considered very beneficial to invalids.

KOUSSO, the flowers of an Abyssinian tree administered as a vermifuge.

KREAT, a very wholesome bitter extracted from the roots and stalks of an Indian plant. **(See CHIRETTA.)**

KUMMEL, a liqueur made from corn spirit and flavoured with caraway seeds. It is manufactured in Germany and Russia, particularly in Riga.

KUNDAH OIL, an African name for the oil of Carapa Guineensis. **(See CARAPA NUTS.)** Also known as Tulicuna oil.

KUSKUS, the roots of an Indian grass, which are made into mats and screens in India and in Europe, and are laid in drawers because of their perfume. The volatile oil extracted from them is used in perfumery.

L

LABANUM, a sweet-smelling resin obtained from the stems of rock-rose. The trade is almost confined to the eastern Mediterranean. The leaves are used in Greece as a substitute for tea.

LABELS.

Atlantic Lithographing Co., St. John, N.B.
Benallack Litho. & Printing Co., Ltd., Montreal.
Bulman Bros., Ltd., Winnipeg, Man.
Colonist Printing & Publishing Co., Ltd., Victoria, B.C.
Consolidated Litho. Mfg. Co., Ltd., Montreal.
Crown Lithographing Co., Ltd., Ottawa, Ont.
Dominion Litho. Co., The, Montreal, Que.
Duncan Lithographing Co., Ltd., Hamilton, Ont.
Harris Lithographing Co., Toronto, Ont.
Hough Lithographing Co., Ltd., Toronto, Ont.
Howell Lithographing Co., Ltd., Hamilton, Ont
Laidlaw Litho. Co. Ltd., Hamilton, Ont.
Lawson & Jones, Ltd., London, Ont.
London Printing & Litho. Co., Ltd., The, London, Ont.
Long, A. E., & Co., Ltd., Toronto, Ont.
Reason, H. T., & Co., London, Ont.
Reid Press, Ltd., The, Hamilton Ont
Rolph & Clark, Ltd., Toronto, Ont.
Scott, Noble, Ltd., Toronto, Ont.
Smith, The David, Engraving & Lithographing Co., Toronto, Ont.
Southam Press, Ltd., Montreal, Que.
Simcoe Litho. Co., Ltd., Simcoe, Ont.
Stone, Ltd., Toronto, Ont.

LABELS, Embossed Brass.

Superior Mfg. Co., Ltd., Toronto, Ont.
Walker & Campbell, Montreal, Que.

LABELS, in Rolls.

Autographic Register Co. of Canada, Ltd., Montreal, Que.

LABELS, Woven and Webbings. (Cotton, Woolen, Silk, Etc.)

Narrow Fabrics Weaving & Dyeing Co., Galt, Ont.
Canada Label & Webbing Co., Toronto.
Narrow Fabrics Co., Toronto, Ont.
Canadian Textile & Weaving Co., Guelph, Ont.
Colonial Weaving Co., Ltd., Peterboro, Ont.
A. J. Gillies Mfg. Co., West Toronto, Ont.
Belding-Paul-Corticelli Co, Coaticook, Que.
Granby Elastic Web Co., Granby, Que.

LABORATORY APPARATUS.

Consolidated Optical Co., Ltd., Toronto, Ont.
Globe Furniture Co., Ltd., The, Waterloo, Ont.
Hendry, The Geo. M. Co., Ltd, Toronto, Ont.

LAC, a substance produced on the twigs of several trees by a small insect. The insects either secrete the lac or produce it by some alteration in the sap of the tree, and envelop themselves in it. Bengal land the Irawadi valley supply the best quality. The Ganges valley produces a large quantity, and some is collected in Indo-China and Sumatra. The twigs with the resin still adhering to them is known as stick-lac. The resin broken off the twigs is seed-lac, and after soaking in water and being squeezed through cloth becomes shell-lac or button-lac, according as it is allowed to spread out into thin flakes or made into round drops. Lac is used extensively in China and Japan to decorate a number of fancy articles; it forms sealing-wax and French polish and other spirit varnishes; it stiffens the frames of silk hats, and mixed with other substances makes a good cement. In India, chains and bracelets are made of lac. When the lac is steeped, a red colouring matter derived from the bodies of the insects is left in the water. This is boiled down into cakes and is used in dying silk, leather, and cloth. It is very similar to cochineal but not quite so lasting.

LACE.—Real lace is made entirely with the needle or partly with bobbins. Frequently the foundation is a network on which the pattern is worked, or to which it is sewed, but in some kinds the different parts of the pattern are joined together without any network. In pillow lace the plainer parts are formed by the interlacing of a number of threads wound on bobbins, and are afterwards connected by more delicate needle-work. Needle lace is made at Venice and in Belgium, where also pillow lace (point duchesse), called also in France (point d'Angleterre) is made, as well as at Honiton and other towns in Devonshire. Valenciennes has long been famous for its lace, and Alencon lace (point de France) was noted not many years ago, but is no longer manufactured at that town. Silk lace is made at Lyons, Venice, Malta, and elsewhere, and gold and silver lace in Spain. The nandino or ''spider's web'' of Paraguay is very light and elegant, but at present has a limited sale. Machine-made lace is largely manufactured in many countries, and is an important article of trade. The chief centres of the manufacture are Nottingham, where, however, the industry has declined of late, Calais, St. Gall, Barmen, and other towns in Germany. Silk, cotton, and a mixture of materials are worked up, and Chantilly, Maltese, Valenciennes, Venetian, and other varieties of real lace are imitated.

LACES, Belt and Special.

McCarthy, H. B., Toronto, Ont.
McCordick, Frank C., St. Catharines, Ont.

LACES, Cotton.

Ritchie, H. P., & Co., Toronto, Ont.

LACES, Handmade.

Kassab, The G. & S., Kimona Mfg. Co., Montreal, Que.

LACES, Shoe, Corset, Etc.

Ahrens, Chas. A., Ltd., Berlin, Ont.
Gillies, A. J., Mfg. Co, Toronto, Ont
Peters, J. Henry, Co Toronto, Ont

LACES, Silk.

Rea, A. E., & Co., Ltd., Toronto, Ont.
Ritchie, H. P., & Co, Toronto, Ont.

LACES AND FRINGES, Gold and Silver

Dominion Regalia Co., Ltd., Toronto, Ont.

LACQUER.—The lacquer applied to metal ware and some aritcles of furniture is a mixture composed chiefly of shellac dissolved in spirits of wine, to which a small quantity of gum-resin is added, and which is coloured by gamboge and other substances. The lacquer on Japanese lacquer-ware is the juice of Rhus vernicifera, which is laid in numerous coatings on the surface to be decorated. For gold and silver lacquer powder of these metals is added.

LACQUERS.

Brandram-Henderson, Ltd., Montreal, Que., and Halifax, N.S.
British America Paint Co., The, Victoria, B.C.
Imperial Varnish & Color Co., Ltd., Toronto.
International Varnish Co., Ltd., Toronto, Ont.
Jamieson, Jas. W., & Co, Montreal, Que.
Jamieson, R. C., & Co, Ltd, Montreal, Que.
Langmuir, James & Co., Ltd., Toronto, Ont.
Masse Industrial Co., The, Windsor, Ont.
Plastics, Ltd., Toronto, Ont.
Ramsay, A., & Co., Montreal, Que.
Scarfe & Co., Brantford, Ont.
Sherwin-Williams Co. of Canada, Ltd., Montreal.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.

LACROSSE BALLS.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.

LACROSSE STICKS.

Holland, G. A., & Son, Co., Montreal, Que.
Lally Lacrosse Mfg. Co., The, Cornwall, Ont.

LADDERS, Extension and Firemen's.

Anglin, S., & Co., Kingston, Ont.
Beatty Bros., Ltd., Fergus, Ont.
Berlin Woodenware Co., Berlin, Ont.
McFarlane Ladder Works, Toronto, Ont.
Seagrave, W. E., & Co., Walkerville, Ont.
Stratford Mfg. Co., Ltd., Stratford, Ont

LADDERS, Fruit-Picking.

Beatty Bros., Ltd., Fergus, Ont.
Hantsport Fruit Basket Co., Hantsport, N.S.
Stratford Mfg. Co., Ltd., Stratford, Ont

LADDERS, Step.

Beatty Bros., Ltd., Fergus, Ont.
Berlin Woodenware Co., Berlin, Ont.
Hamilton Brass Mfg. Co., Ltd., Hamitlon, Ont.
McFarlane Ladder Works, Toronto, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Stratford Mfg. Co., Ltd., Stratford, Ont
Thomas Bros., Ltd., St. Thomas, Ont.

LADDERS, Store Trolley.

Allith Mfg. Co., Ltd., Hamitlon, Ont.
Richards-Wilcox Canadian Co., Ltd., London, Ont.

LADLES, Butter and Dairy.

Richardson, C., & Co., St. Mary's, Ont.

LADLES AND LADLE TONGS.

Hamilton Facing Mill Co., Ltd., Hamilton, Ont.

Northern Crane Works, Walkerville, Ont.

LAMB SKINS.—Used instead of kid in the fabrication of gloves. South Russia, Greece, and Hungary supply the best qualities.

LAMETTA.—Foil or wire of metal, especially copper.

LAMPBLACK, the soot produced by burning petroleum, tar, or any cheap oil in a limited volume of air. The soot is afterwards freed from the admixture of tar by heating, and sometimes soda is also employed to purify it. Lampblack is the important constituent of Indian ink and printing ink, and is used in colouring some kinds of leather.

LAMPS, Acetylene.

Piper, The Hiram L., Co., Ltd., Montreal, Que.
Piper, The N. L. Railway Supply Co., Ltd., Toronto, Ont.
Sudbury Construction & Machinery Co., Ltd., The, Sudbury, Ont.

LAMPS, Automobile, Ship, Street, Train and Switch.

Chadwick Brass Co., Ltd., The, Hamilton, Ont.
City Brass Works, Hamilton, Ont.
Crouse-Hinds Co. of Canada, Toronto, Ont.
Diamond Light & Heating Co., Ltd., Montreal.
Edmunds, J. H., & Co., Toronto, Ont.
Forman, John, Montreal, Que.
Piper, The Hiram L., Co., Ltd., Montreal, Que.
Piper, The N. L. Railway Supply Co., Ltd., Toronto, Ont.
Pollock Mfg. Co., Ltd., Berlin, Ont.

LAMPS, Coal Oil.

Canadian Tungsten Lamp Co., Ltd., Hamilton, Ont.
Dominion Glass Co., Ltd., Toronto, Ont.

LAMPS, Electric Arc.

Canadian Sunbeam Lamp Co., Ltd., Toronto,
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Ont.
Forman, John, Montreal, Que.

LAMPS, Electrical Incandescent.

Canadian General Electric Co., Ltd., Toronto.
Canadian Sunbeam Lamp Co., Ltd., Toronto,
Canadian Tungsten Lamp Co., Ltd., Hamilton, Ont.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Forman, John, Montreal, Que.
Munderloh & Co., Ltd., Montreal, Que.
Packard Electric Co., Ltd., St. Catharines, Ont.

LAMPS, Tungsten.

Canadian Sunbeam Lamp Co., Ltd., Toronto,
Canadian Tungsten Lamp Co., Ltd., Hamilton, Ont.

LANCEWOOD, the tough and pliant wood of Guatteria virgata (order Anonaceæ) is the true lancewood of commerce.

LANKA, a tobacco grown in the Godavari delta, Madras, and named after an island in the river.

LANTERNS.

Canadian Tungsten Lamp Co., Ltd., Hamilton, Ont.
Piper, The Hiram L., Co., Ltd., Montreal, Que.
Piper, The N. L. Railway Supply Co., Ltd., Toronto, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Wright, E. T., & Co., Hamilton, Ont.

LANOLINE, a greasy substance extracted from the oil of sheep's wool, and used for ointments, pomades, soap, &c.

LARCH.—The common larch grows in south and middle Europe and yields a useful timber. The resin obtained from the larch in Siberia is known as Orenburg gum, and a manna collected in France is called Briancon manna. The timber of the American larch, Tamarack or Hackmatack, is highly valued.

LARD, the fat of swine rendered down. A considerable quantity is manufactured in Hungary and Servia, but the industry is enormously developed in the United States and Canada. Leaf lard is made from the superfluous fat which accumulates round the kidneys and other parts of the pig and is rendered down in an open kettle, while steam lard is made from all parts of the animal, and is rendered down in closed cylinders; it is then refined in steam-jacketed kettles. Formerly lard was used only in cooking and to a small extent in the preparation of ointments. Now, however, a large quantity of neutral lard, or oil, is made, chiefly from leaf lard, for the preparation of margarine. Stearine pressed out of lard is made into candles, and another ingredient, oliene, is sold as a lubricant under the name of "lard oil"; sometimes it is also used for the adulteration of salad oil.

LARD.

Brown, J. & Co., Winnipeg, Man.
Collingwood Packing Co., Ltd., Collingwood, Ont.
Davies, The Wm., Co., Ltd., Toronto, Ont.
Davis & Fraser, Halifax, N.S.
Duff, John, & Son Ltd Hamilton Ont
Fearman, F. W., Co., Ltd., Hamilton, Ont.
Fowler's Canadian Co., Ltd., Hamitlon, Ont.
Freeman, The W A, Co., Ltd, Hamilton, Ont.
Ingersoll Packing Co., Ltd., Ingersoll, Ont.
Lawrason, S. F. & Co., London Ont.
St. Thomas Packing Co., Ltd., The, St. Thomas, Ont
Swift Canadian Co., Ltd., Winnipeg, Man.
Tilsonburg Packing Co., The, Tillsonburg, Ont.
Western Packing Co., of Canada, Ltd., Winnipeg, Man.
Whyte Packing Co., Ltd., The, Stratford, Ont.

LARD COMPOUND.

Fairbank, The N. K., Co., Ltd., Montreal, Que.
Fearman, F. W., Co., Ltd., Hamilton, Ont.
Harris Abattoir Co., Ltd., The, Toronto, Ont.
Swift Canadian Co., Ltd., Winnipeg, Man.

LARKS.—Larks are caged and netted in Germany for the table, and many are exported to France and Great Britain.

LARRIGANS AND SPORTING GOODS

Acme Glove Works Ltd., Montreal, Que.
Beal, The R. M., Leather Co., Ltd., Lindsay, Ont.
Boyer, J. W, & Co Victoria Corner, N.B.
Gendron Penetang Shoe Co, Penetang, Ont.
Hudson Bay Knitting Co., Montreal, Que.
Johnson, R. B., Ltd., Vancouver, B.C.
Lake, The G. M. Co, Ltd., Bridgetown, N.S.
McKenzie, Crowe & Co., Ltd., Bridgetown, N.S.

Palmer, McLennan Shoe Pack Co. Ltd., Fredericton, N.B.
Palmer, The John Co., Ltd., St. John, N.B.
Standard Mfg. Co., Ltd., The, Sackville, N.B.
St. Laurent Garment Co., Montreal.
Taylor, W., Parry Sound Ont

LASTS, Boot and Shoe.

Boston Last Co., Richmond, Que.
Canada Last Co., Ltd., The, Toronto, Ont.
Dominion Last Works, Quebec, Que.
Lewis & Sons, Lewiston, N.S.
Lyn Last Works, Lyn, Ont.
Montreal Last Co., Montreal, Que.
Robin Bros., Montreal, Que.
Thompson Mfg. Co., Ltd., Grand Bay, N.B.
Toronto Last Factory, The, Toronto, Ont.

LASTINGS, a strong, hard cloth used for ladies' boots, &c.

LATAKIA, a Turkish tobacco which grows on the hills near the seaport Latakia in Syria.

LATCHES.

Allith Mfg. Co., Ltd., Hamilton, Ont.
Belleville Hardware & Lock Mfg. Co., Ltd., Belleville, Ont.
Canada Steel Goods Co., Ltd., Hamilton, Ont.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Dillon, R., & Son, Oshawa, Ont.
Gendron Mfg. Co., Ltd ,Toronto, Ont.
Hamilton Stove & Heater Co., Ltd. The, Hamilton, Ont.
Louden Machinery Co., Guelph, Ont.
Montreal Hardware Mfg. Co., Ltd., The, Montreal, Que.
Peterborough Lock Mfg. Co., Ltd., The, Peterborough, Ont ,
Richard-Wilcox Canadian Co. Ltd., London, Ont.
Safety Door Hanger Co., Ltd., Hamilton, Ont.
Smart, The James Mfg. Co., Ltd., Brockville, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.

LATH, Expanded Metal.

Galt Art Metal Co., Ltd., The, Galt, Ont.
Steel & Radiation, Ltd., Toronto, Ont.
Trussed Concrete Steel Co., of Canada, Ltd., Walkerville, Ont.

LATH, Metal and Steel.

Canadian Metal Shelter Co., Winnipeg, Man.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Pedlar People, Ltd., The, Oshawa, Ont.

LATH, Wire.

Steel & Radiation, Ltd., Toronto, Ont.

LATHES, Buffing and Polishing.

Canadian Hanson & Van Winkle Co., Ltd., Toronto, Ont.
Fisher Electric & Mfg. Co., Ltd., Toronto, Ont.
Pendrith Machinery Co., Ltd., Toronto, Ont.

LATHES, Iron, Brass, Gap, Engine and Screw Cutting.

Bertram, John, & Sons, Ltd., Dundas, Ont.
Canada Machinery Corporation, Ltd., Galt, Ont.
Gardner, Robt., & Son, Ltd., Montreal, Que.
McDougall, R., Co., Ltd., Galt, Ont.
Stevens Co. of Galt, Ltd., Galt, Ont.

LATHES, Wood Turning.

Bruce Agricultural Works, The, Teeswater, Ont.
Canada Machinery Corporation, Ltd., Galt, Ont.
Cowan & Co. of Galt, Ltd., Galt, Ont.
Jackson, Cochrane & Co., Berlin, Ont.
Kalbfliesch Bros., Stratford, Ont.

LATTEN, a thin sheet of metal, strictly of brass, but the term is commonly applied to sheets of tin, iron, &c.

LAUDANUM.—Tincture of opium.

LAUNCHES, Gasoline.

Bracebridge Launch Works, Bracebridge, Ont.
Butler, M. L., Brighton, Ont.
Dean, Walter, Toronto, Ont.
Ditchburn, H., Boat Mfg. Co., Ltd., Gravenhurst, Ont.
Gidley Boat Co., Ltd., Penetanguishene, Ont.
McKeough & Trotter, Ltd., Chatham, Ont.
Midland Engine Co., Midland, Ont.
Oil Motor & Mfg. Co., Ltd., St. John, N.B.
Peterborough Canoe Co., Ltd., Peterborough, Ont.
St. Lawrence Engine Co., Ltd., Brockville, Ont.
Schofield-Holden Machine Co., Ltd., Toronto,
Vancouver Shipyard, Ltd., Vancouver, B.C.

LAUNCHES, Steam.

Maritime Foundry & Machine Works, Ltd., Chatham, N.B.
Peterborough Canoe Co. Ltd., Peterborough, Ont.
Vancouver Ship Yard, Ltd., Vancouver, B.C.

LAVATORIES.

Amherst Foundry Co., Ltd., Amherst, N.S.
Canadian Trenton Potteries Co., Ltd., St. John's, Que.
Dominion Sanitary Pottery Co., St. John's, Que.
Standard Ideal Co., Ltd., Port Hope, Ont.
Standard Sanitary Mfg. Co., Ltd., Toronto, Ont.

LAVENDER.—The flowers of Lavandula vera are gathered for the sake of their perfume, and an oil is extracted from them. On the continent of Europe the wild lavender is collected, but in England the plant is cultivated, especially near Mitcham, Surrey, and Hitchin, Hertfordshire, and the oil distilled from these flowers is of superior quality. In Southern France oil is also obtained, but it is less odorous. It is called oil of spike, and is chiefly used by painters on porcelain and in the composition of varnishes.

LAW BOOKS AND PUBLICATIONS.

Canada Law Book Co., Ltd., The, Toronto, Ont.
Carswell Co., Ltd., Toronto, Ont.

LAWN, a fine linen cambric, made chiefly in Belfast.

LEAD is a heavy gray metal which rarely occurs in the natural state but is generally obtained from the ores of gelena. All gelena contains more or less silver. Lead is soft, easily malleable and to a certain extent ductile. It can readily be manufactured into pipes, sheet lead for roofing, gutters, bullets and shot. It suffers less than most metals when exposed to damp in the soil or the atmosphere. It enters into the composition of many alloys such as type metal, pewter, Britannia metal, etc., and having a low melting point, is mixed with tin to form soldering metal. Many of its salts are important in industries. For instance, litharge is used in glazing earthenware and makes oil varnishes dry more quickly and thoroughly. The red oxide of lead is used in the manufacturing of flint glass. The carbonate of lead or white lead is used as a pigment in paints, etc. The chromite of lead is a yellow pigment. Sugar or acetate of lead is used in the drug industry.

The world's production of lead in the year 1913 amounted to 1,270,458 short tons. The principal countries contributing this production were as follows:—

	Tons.
United States	411,878
Spain	223,767
Germany	199,627
Australia	127,867
Mexico	68,343
Belgium	55,997
Great Britain	33,620
France	30,864
Austria-Hungary	26,565
Italy	23,920
Greece	20,282
Canada	18,849

The mining and treatment of Canadian lead ores is almost entirely a British Columbia industry. The ores come largely from East Kootenay and West Kootenay districts. They are smelted and the product refined at Trail, B.C.

For some years Canada has paid a bounty to lead producers in order to encourage its production. The bounty began with the year 1903 and the total sum paid in bounty up to the end of 1914 amounted to $1,975,887. In 1913 the bounty amounted to $68,065.

The importation of lead and manufactures of lead into Canada during the year ending March 31st, 1914, is valued at $943,336, and the exports during the same year amounted to $7,569. The importations of white and red lead pigments for the same year amounted to $203,337.

LEAD, Bullion and Pig.

Canada Metal Co., Ltd., Toronto, Ont.
Consolidated Mining & Smelting Co. of Canada, Ltd., Trail, B. C.
Frankel Bros., Toronto, Ont.
North American Smelting Co., Ltd., Kingston, Ont.
Tallman Brass & Metal Co., Hamilton, Ont.

LEAD CONCENTRATES.

Consolidated Mining & Smelting Co. of Canada, Ltd., Trail, B. C.
North American Smelting Co., Ltd., Kingston, Ont.

LEOD OXIDES. (See White Lead.)

LEAD, Sheet.

Canada Metal Co., Ltd., Toronto, Ont.
Robertson, The James Co., Ltd., Montreal, Que., and Toronto, Ont.

LEAD, Window and Wedge.

Robertson, The James, Co., Ltd., Toronto, Ont.
Robertson, Thos., & Co., Ltd., Montreal, Que.

LEATHER.—Hides are delivered to the tanneries in a fresh condition, salted, or salted and dried. The first process is to remove all hair, grease, and other impurities, which is effected by steeping the hides in lime-water, or by heating them (sweating) till putrefaction sets in, when the hair can be easily scraped off. The hides are then tanned, being laid in pits filled with solutions of tanning materials. They are first immersed in a weak solution, and are transferred to other pits where the solution is stronger. They are then dried, oiled, worked over with a steel striking pin and rolled. A whole hide is called a crop, half of which, cut longitudinally, is a side. The central nearly rectangular part, when the shank pieces, checks, &c., have been removed, is known as a butt, and half a butt is a bend. The small pieces cut off are known as the offal. Dressing leather consists in a series of operations intended to adapt the leather for the various uses to which it may be applied. The flesh side is pared down to make it smooth and to make the leather of the same thickness throughout. Some hides are also split into two or more layers. Tallow and cod-liver oil are applied to soften the leather and render it flexible. Tawing is dressing leather with certain mineral salts. Glove leathers and the top leathers of ladies' boots are tawed. Shamoying is working oil into the skin. (See **BUCKSKIN.**) Morocco leather used to be made of goat-skins tanned in sumach, but split calf-skins and sheep-skins are now largely used. Russia leather is now any thin smooth leather impregnated with oil of birch bark. In Russia calf-skins only used to be employed in its manufacture.

LEATHER, Belting.

Acton Tanning Co., Ltd., The, Acton, Ont.
Beardmore Belting Co., Ltd., Toronto, Ont.
Goodhue, J. L., & Co., Ltd., Danville, Que.
Hamilton Oak Tanning Co., Ltd., The, Hamilton, Ont.
Newton Tanning Co., Ltd., Elgin Mills, Ont.
Sadler, Geo. W., & Co., Stanbridge East, Que.
Sadler & Haworth, Montreal, Que.

LEATHER, Calf.

Collis Leather Co., Ltd., The, Aurora, Ont.
Davis Leather Co., Ltd., Newmarket. Ont.
Galibert, Paul, Montreal, Que.

LEATHER, Carriage.

Clarke & Clarke, Ltd., Toronto, Ont.
Cotton Mfg. Co., Ltd., Toronto, Ont.
Marlatt & Armstrong Co., Ltd., The, Oakville,
Montreal Carriage Leather Co., Ltd., Montreal.
Peerless Leather Co., The, Berlin, Ont.
Peters, C. H., Sons, Ltd., St. John, N.B.

LEATHER, Chrome Tanning.

Acton Tanning Co., Ltd., The, Acton, Ont.
Borne ,Lucien, Quebec, Que.
Clement, Max, & Sons, Quebec, Que.
Clement, Edgar, (Reg.), Quebec, Que.
Davis Leather Co., Ltd., Newmarket, Ont.
Duclos & Payan, St. Hyacinthe, Que.
Fortier, Nazaire, & Cie., Quebec, Que.
Hamilton Oak Tanning Co., Ltd., The, Hamilton, Ont.
King Bros., Co., of Whitby, Ltd., Whitby, Ont.
McKenzie, Crowe & Co., Ltd., Bridgetown, N.S.
Pouliot, J. & S., & Frere, Quebec, Que.
Robson Leather Co., Ltd., The, Oshawa, Ont.
Thornton's, Ltd., Brantford, Ont.
Waterman Tanning Co., Ltd., Bridgewater, N.S.

LEATHER, Combination and Kangaroo.

Acton Tanning Co., Ltd., The, Acton, Ont.
Clement, Max, & Sons, Quebec, Que.
King Bros., Co., of Whitby, Ltd., Whitby, Ont.

Pouliot, A., & Co., Quebec, Que.

LEATHER, Kid.

Acton Tanning Co., Ltd., The, Acton, Ont.
Bonner Leather Co., Montreal, Que.
Borne ,Lucien, Quebec, Que.
Clarke & Clarke, Ltd., Toronto, Ont.
Clement, Max, & Sons, Quebec, Que.
Edwards & Edwards, Toronto, Ont.
Fenlin Leather Co., The, Montreal, Que.
Fisk, Ltd., Montreal, Que.
Galibert, F., Montreal, Que.
Gailbert, Paul, Montreal, Que.
Holliday, W. J., & Son, Coboconk, Ont.
Marlatt & Armstrong Co., Ltd., The, Oakville,
Pouliot, A., & Co., Quebec, Que.
Quebec Glove & Leather Mfg. Co., Quebec, Que.

LEATHER, Lace.

Acton Tanning Co., Ltd., The, Acton, Ont.
Beal Bros., Ltd., Toronto, Ont.
Beardmore Belting Co., Ltd., Toronto, Ont.
Beardmore & Co., Toronto, Ont.
Brandon Tannery, Ltd., Brandon, Man.
Bremner, Alex., Tillsonburg, Ont.
Davidson, W. H., & Co., Brandon, Man.
England, I., & Sons, Knowlton, Que.
Electric Boiler Compound Co., Ltd., Guelph, Ont.
Goodhue, J. L., & Co., Ltd., Danville, Que.
McCordick, Frank C., St. Catharines, Ont.
Sadler & Haworth, Montreal, Que.
Simcoe Tanning & Fur Dressing Co., Ltd., Simcoe, Ont.
Standard Mfg. Co., Ltd., Sackville, N.B.
Taylor, W., Parry Sound, Ont.
Wood Bros., St. Catharines, Ont.

LEATHER, Mechanical and Hydraulic.

Beardmore & Co., Toronto, Ont.
McLaren, The J. C., Belting Co., Ltd., Montreal.
McLaren, D. K., Ltd., Montreal, Que.
Sadler & Haworth, Montreal, Que.

LEATHER, MOCCASIN.

Blouin, F., Quebec, Que.
Dugal, P., & Matte, Quebec, Que.
Fortier, Nazaire, & Cie., Quebec, Que.,
Galibert, F., Montreal, Que.
Labreque, Francis, Quebec, Que.
Peters, C. H., Sons, Ltd., St. John, N.B.
Ross, Henry, Indian Lorette, Que.
Wickett & Craig, Ltd., Toronto, Ont.

LEATHER, Morocco.

Clarke & Clarke, Ltd., Toronto, Ont.

LEATHER, Patent and Enamel.

Borne, Lucien, Quebec, Que.
Clarke, A. R., & Co., Ltd., Toronto, Ont.
Clement, Max, & Sons, Quebec, Que.
Dugal, P., & Matte, Quebec, Que.
Falaradeau, Cy., Quebec, Que.
Fisk, Ltd., Montreal, Que.
Marlatt & Armstrong Co., Ltd., The, Oakville, Ont.
Montreal Carriage Leather Co., Ltd., Montreal.
Peters, C. H., Sons, Ltd., St. John, N.B.
Robson Leather Co., Ltd., The, Oshawa, Ont.

LEATHER, Picker.

Beardmore & Co., Toronto, Ont.
Goodhue, J. L., & Co., Ltd., Danville, Que.
McLaren, The J. C., Belting Co., Ltd., Montreal.
Sadler & Haworth, Montreal, Que.

LEATHER, Sheepskin.

Acton Tanning Co., Ltd., The, Acton, Ont.
Clarke & Clarke, Ltd., Toronto, Ont.
Clement, Max, & Sons, Quebec, Que.
Edwards & Edwards, Toronto, Ont.
Galibert, F., Montreal, Que.
Gailbert, Paul, Montreal. Que.
Gauthier, Prevost & Frere, Montreal, Que.
Holliday, W. J., & Son, Coboconk, Ont.
Johnston, H. B. & Co., Toronto, Ont.
Kimble, John & Son, Ltd., St. John, N.B.
Labreque, Francis, Quebec, Que.
McEntyre, John, Ltd., Montreal, Que.
McLean, J. J. & Sons, Hopewell, N.S.
Pouliot, A., & Co., Quebec, Que.
Quebec Glove & Leather Mfg. Co., Quebec, Que.
Waterman Tanning Co., Ltd., Bridgewater, N.S.

LEATHER, Sole.

Anglo-Canadian Leather Co., Ltd., Huntsville, Ont.
Barrie Tanning Co., Ltd., The, Barrie, Ont.
Beardmore & Co., Toronto, Ont.
Blouin, F., Quebec, Que.
Breithaupt Leather Co., Ltd., Berlin, Ont.
Dickinson, J. D., & Son, Woodstock, N.B.
Duclos & Payan, St. Hyacinthe, Que.
England, I., & Sons, nowlton, Que.
Hamilton Oak Tanning Co., Ltd., Hamilton, Ont.
Hyman C. S., Co., London, Ont.
Logan Tanneries, Ltd., The, Pictou, N.S.
Magnetawan Tanning & Electric Co., Toronto,
Marlatt & Armstrong Co., Ltd., The, Oakville,
Tobey, Ltd., Colingwood, Ont.

LEATHER, Saddlers'.

Barrie Tanning Co., Ltd., The, Barrie, Ont.
Beal Bros., Ltd., Toronto, Ont.
Beardmore & Co., Toronto, Ont.
Clarke & Clarke, Ltd., Toronto, Ont.
Marlatt & Armstrong Co., Ltd., Oakville, Ont.
Peters, C. H., Sons, Ltd., St. John, N.B.
Wickett & Craig, Ltd., Toronto, Ont.

LEATHER, Upholsterers'.

Clarke & Clarke, Ltd., Toronto, Ont.
Cotton Mfg. Co., Ltd., Toronto, Ont.
Edwards & Edwards, Toronto, Ont.
Holliday, W. J., & Son, Coboconk, Ont.
Marlatt & Armstrong Co., Ltd., Oakville, Ont.
Montreal Carriage Leather Co., Ltd., Montreal.
Peerless Leather Co., The, Berlin, Ont.
Peters, C. H., Sons, Ltd., St. John, N.B.
Wickett & Craig, Ltd., Toronto, Ont.

LEATHERBOARD.

Blouin, F., Quebec, Que.
Canadian Leatherboard Co., Ltd., Chambly Canton, Que.
Richard & Co., Quebec, Que.
Walker, J. R., & Co., Montreal, Que.

LEATHERCLOTH, or American cloth, a textile fabric, usually unbleached calico, on which a paste of boiled oil, pigments, driers, and other ingredients is laid with a roller. Linoleum cement is also used, and gelatine rendered insoluble by some chemical agent. Varnish renders it more durable.

LEDGERS, Loose Leaf. (See Systems, Loose Leaf.)

LEGGINGS, Leather and Cloth.

Beal Bros., Ltd., Toronto, Ont.
Beal, The R. M., Leather Co., Ltd., Lindsay, Ont.
Jacobi, Philip, Toronto, Ont.
Kelly's, Ltd., Halifax, N.S.
Packard, L. H., & Co., Ltd., Montreal Que.
Smart-Woods Ltd., Ottawa, Ont.

LEMON GRASS. (See GRASS OILS.)

LEMONS.—The lemon, a small tree of the same natural order as the organge, is cultivated in Mediterranean countries and in the East and West Indies and southern United States. Besides fresh fruit, the expressed juice is exported, and the dried peel is used in making liqueurs. From the juice citric acid is extracted, and the peel yields a volatile oil, or essence of lemons, much used in perfumery. Sicily and Calabria are the chief sources of essence. Salts of lemon are binoxalate of potash. They exist in many plants, but are now obtained from sawdust. Salts of sorrel is another name for them.

LENSES, Spectacle.

Consolidated Optical Co., Ltd., Toronto, Ont.
Gowlland Optical Co., Ltd., Montreal.

LENTILS, a leguminous plant, cultivated in southern Germany, the borders of the Mediterranean, and in the East Indies. There are several varieties, the small brown seeds being most esteeme.

LEOPARD.—The leopard is found in all parts of Africa and in Central Asia and India. Leopard skins are articles of trade.

LETTERS, Aluminum.

Patterson & Heward, Toronto, Ont.

LETTERS, Brass and Bronze.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Montreal Stencil Works, Montreal, Que.
Patterson & Heward, Toronto, Ont.

LETTERS, Metallic Pattern.

Hamilton Facing Mill Co., Ltd., Hamilton, Ont.
Patterson & Heward, Toronto, Ont.
Piper, The N. L., Railway Supply Co., Ltd., Toronto, Ont.

LETTERS, Steel Die.

Montreal Stencil Works, Montreal, Que.
Superior Mfg. Co., Ltd., Toronto, Ont.

LETTERWOOD, snakewood or leopardwood, a beautifully marked wood from the West Indies and Guiana. It is the heartwood of several kinds of tree. It is used for walking-sticks ,and for bows, being very elastic; some kinds are also used in veneering.

LEVELS, Track (Wood and Steel.)

Canadian Steel Foundries, Ltd., Montreal, Que.
Coghlin, B. J., Co., Ltd., Montreal, Que.
Gowlland Optical Co., Ltd., Montreal.

LICORICE.—The licorice plant grows in the south of Europe chiefly. The prickly licorice is cultivated in Italy, Sicily, Russia, and the East. Turkey, Spain, and Italy export the largest quantities, and from the latter two countries large quantities of the inspissated juice, known as Spanish juice, are sent into the market. Licorice is used in medicine, by porter brewers, and by tobacco manufacturers.

LICORICE SPECIALTIES.

National Licorice Co., Montreal, Que.

LIFE PRESERVERS AND RING BUOYS.

Canadian Cork Cutting Co., Montreal, Que.
Ewing, S. H., & Sons, Montreal, Que.
Freyseng Cork Co., Ltd., The, Toronto, Ont. and Montreal, Que.
Leckie, John, Ltd., Toronto, Ont.
Pike, The D., Co., Ltd., Toronto, Ont.
Soper, Robt., Hamilton Ont.
Turner J. J., & Sons, Peterborough, Ont.

LIGHTNING ARRESTORS.

Brandon Wire & Stamp Co., Brandon, Man.
Canadian Crocker-Wheeler Co., Ltd., The, St. Catharines, Ont.
Canadian General Electric Co., Ltd., Toronto.
Canadian Lightning Arrestor Co., Ltd., Winnipeg, Man.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Dodd & Struthers, Sherbrooke, Que.
Empire Lightning Rod Co., Ltd., Winnipeg, Man.

LIGN ALOES, a contraction for Lignum Aloes, called also eaglewood. The heartwood, which is burnt in the East as incense. The trees grow in Further India and the Malay Archipelago.

LIGNITE.—This term is generally used as synonymous with brown coal, but it strictly signifies bituminous wood in which the branches, bark, and rings are still visible, whereas brown coal denotes all the coal of Tertiary age. Brown coal is widely distributed, and is especially abundant in the Oligocene rocks of Germany, Austria, Bohemia, and Hungary. It is also found in the upper Missouri valley and Vancouver Island, in the East Indies and Japan. It is well suited for briquettes, and is the source of the umber of Cologne. A very important use is as a source of mineral oil and paraffin. **(See also COAL.)**

LIGNUM VITÆ. (See GUAIACUM.)

LIMA WOOD, a name for Pernambuco wood. **(See BRAZIL WOOD.)**

LIME.—Oxide of calcium, obtained by burning chalk, limestone, or other forms of carbonate of lime. Quicklime enters into combination with water, forming slaked lime, a light white powder. A solution of this in water is the lime juice employed in medicine, and when the lime is mixed with a large excess of water it is called milk of lime, and is used as whitewash. Lime is an ingredient of mortar and of plate and sheet glass, is used to purify gas, to remove the hair from hides, and for many other industrial purposes. Chloride of lime is a well-known bleaching-powder and sanitary agent. Sulphate of lime is gypsum; and phosphate of lime is the chief constituent of bone earth, commonly used as a manure. Acetate of lime is used in dyeing with Turkey red, and to render materials uninflammable.

LIME.—The fruit of Citrus limetta, a tree allied to the orange and lemon. It is a native of the East, but is now grown in the West Indies, in southern Europe and the south United States. The variety known as Adam's Apple is especially the production of Corfu. Like lemons, limes yield an antiscorbutic juice, and the peel is candied. **(See also BERGAMOT.)**

LIME.

Canada Lime & Builders Supply Co., Montreal.
Dominion Lime Co., The, Sherbrooke, Que.
Evans, Coleman & Evans, Ltd., Victoria, B.C.
Jamieson Lime Co., The, Renfrew, Ont.
Maritime Lime Co., St. John, N.B.
Miller, Charles, St. John, N.B.
McLean, The J. J., Lime Co., Young, Sask.
Ontario Lime Association, Toronto, Ont.
Randolph & Baker, Ltd., Randolph, N.B.
Robertson, The D. Co., Ltd., Toronto, Ont.

Rocky Mountain Cement Co., Ltd., Calgary, Alta.
Sovereign Lime Works, Montreal, Que.
Standard Chemical Iron & Lumber Co., of Canada, Ltd., Toronto, Ont.
Stetson, Cutler & Co., St. oJhn, N.B.
Winnipeg Supply & Fuel Co., Ltd., Winnipeg, Man.
Wright, J. C., & Co., Hull, Que.

LIME, Acetate of.

Dominion Chemical Co., Ltd., Sherbrooke, Que.
Ontario Lime Association, Toronto, Ont.

LIME JUICE.

National Drug & Chemical Co. of Canada, Ltd., Montreal, Que.
St. Louis Preserving Co., Ltd., The, Montreal, Que.

LINEN.—A fabric originally made entirely of flax, but now frequently of a mixture of flax and hemp or jute. The preparation of the fibre is laborious, and flax cannot be so easily spun as cotton, because all the gum cannot be removed from the fibre, and therefore linen is a dear material, and in spite of its greater strength and glossiness is less in demand than it used to be. For fine kinds of linen goods the handloom is still employed, the want of elasticity in flax rendering it difficult to weave in powerlooms. Damasks, towelling, upholstery linen, canvas, sacking and sailcloth, table-cloths, shirtings, and fine lawn and cambric handkerchiefs are made of flax, often with an admixture of other materials. The great linen manufacturing country is the United Kingdom, especially Ireland, in Belfast and the neighbourhood. Germany takes the second place. **(See FLAX.)**

LINENS, Towels & Travelling.

Eastern Linen Mills, Ltd., Dorchester, N.B.
Canadian Niagara Linens, Ltd., Niagara Falls, Ont.
(Branch at Bracebridge, Ont.)
Dominion Linens, Ltd., Guelph, Ont.
Dundas Linen Mills, Ltd., Iroquois, Ont.

LINENS, Table.

Canadian Niagara Linens, Ltd., Niagara Falls, Ont.
Dominion Linens, Ltd., Guelph, Ont.
Branch at Tillsonburg, Ont.
Dundas Linen Mills, Ltd., Iroquois, Ont.

LINENS, Crashes.

Eastern Linen Mills, Ltd., Dorchester, N.B.
Canadian Niagara Linens, Ltd., Niagara Falls, Ont.
Dominion Linens, Ltd., Guelph, Ont.

LINENS, Damask.

Canadian Niagara Linens, Ltd., Niagara Falls, Ont.
Dominion Linens, Ltd., Guelph, Ont.

LINENS, Embroidered.

Pope and Shaw, Montreal.

LINES, Clothes, Wire.

Dominion Wire Rope Co., Ltd., Montreal, Que.

LINES, Fishing.

Shurly & Derett, Ltd., Toronto, Ont.

LINES, Plow.

Doon Twines Ltd., Doon, Ont.
Hamilton Cotton Co., Hamilton, Ont.
Shurly & Derrett, Ltd., Toronto, Ont.

LING, a fish of the family Gadidæ, which lives in the seas of northern Europe. Large numbers are caught, and are salted and dried.

LINIMENT.

Gates, C., Son & Co., Middleton, N.S.
Rundle, Geo. H., & Son, Co., Ltd., Windsor, Ont.
World's Dispensary Association, Bridgeburg, Ont

LININGS, Blanket, Glove, Coat, Robe, Etc.

Glen Woollen Mills, Ltd., The, Glen Williams, Ont.
Montreal Blanket Co., Montreal, Que.
Newlands & Co., Galt, Ont.
Reiner Bros. & Co., Ltd., Wellesley, Ont.
Slingsby Mfg. Co., Ltd., The, Brantford, Ont.
Walshaw, J., & Son, Bolton, Ont.
Wood, J. T., Brussels, Ont.

LININGS Carpet.

Eastern Paper Co., Ltd., St. Basile Station, Portneuf, Que.
Ford, J., & Co., Portneuf Station, Que.
McArthur, Alex., & Co., Ltd., Montreal, Que.
Montreal Quilting Co., Ltd. Montreal, Que.
Lazier Paper Mills, Ltd., Belleville, Ont.

LININGS, Coffin and Casket.

Dominion Casket Company, Guelph, Ont.
Elliot, James S., & Son, Prescott, Ont.
Evel Casket Co., Ltd., Hamilton, Ont.
Girard & Godin, Three Rivers, Que.
Globe Casket Co., The, London, Ont.
Harrison Casket Co., Ltd., The, Harrison, Ont.
National Casket Co., Toronto, Ont.
Semmens & Evel Casket Co., Ltd., The, Hamilton, Ont.
Winnipeg Casket Co., Ltd., Winnipeg, Man.

LININGS, Cotton.

Dominion Textile Co., Ltd., Montreal, Que.
Montreal Cottons, Ltd., Valleyfield, Ont.

LININGS, Stove and Range.

Campbell"s, R., Sons, Hamilton, Ont.
Foley, J. W., & Co., St. John, N.B.
Moore, Benjamin, & Co. Ltd Toronto Ont
Montreal Fire Brick Works Co., Ltd., The, Montreal, Que.
Sterne, G. F., & Sons, Brantford, Ont.
Whittaker Stove Works, Windsor, Ont.

LINOLEUM.—A floor-cloth made of powdered cork, linseed oil and resin. A cement is first made of oxidised oil, common resin, and Kauri resin heated in a closed pan. To this the cork is added and colouring materials (ochre and oxide of iron), and the mixture is spread over canvas by heated rollers. A pattern is printed on the surface of the linoleum. In some kinds, however, the pattern is formed by pieces cut out of sheets of different colours and cemented on to a canvas back. In cork carpet, the particles of cork are larger and no pigment is added.

LINOLEUM, Plain and Printed.

Dominion Oil Cloth Co., Ltd., Montreal, Que.

LINSEED.—The seeds of the flax plant are exported in very large quantities from India. Russia also, the Argentine Republic, Canada and the United States. They yield, when pressed cold, about 20 per cent. of an almost colourless oil, and when heated 25 to 28 per cent. of an amber-coloured oil. Linseed oil is used in mixing paints and varnishes, in oilcloth, &c. Boiled oil, especially when mixed with litharge, white lead, or sulphate of zinc, dries more quickly than cold-drawn oil. The seeds from which the oil has been extracetd is ground into meal or compressed into oilcake and given as food to cattle. (See **FLAX.**)

LINT.—Linen shredded down into a soft material for dressing wounds. It is now superseded by cotton cloth, fluffy on one side, woven for the purpose. Cotton lint is the downy fibre from the seeds of the cotton.

LIQUEURS.—Alcoholic drinks thickened with syrup of sugar and flavoured with various aromatic substances. The most noted is Chartreuse, which is made by the distillation of certain aromatic plants in good grape brandy. The liqueurs made in other monasteries, Benedictine, Trappistine, &c., have also a good reputation. Besides these, there are anisette, flavoured with aniseed; Curacoa, made from unripe bitter oranges; Kummel, flavoured with caraway seeds; Maraschino, distilled from bruised Marasca cherries; Noyau, which owes its flavour to bitter almonds, and Kirschwasser, several of which are described under separate headings. France is the chief manufacturing country, and Cassis, a liqueur made from black currants, is essentially a French production. Paris and Lyons produce various kinds of liqueur; Bordeaux is noted for its anisette, Marseilles for its absinthe, and Dijon for its cassis. Curacoa is made at Amsterdam, Kummel at Riga and Berlin, Maraschino in Dalmatia and Austria.

LIQUID AIR.

L'Air Liquide Society, Montreal, Que.

LIQUIDS, Bronzing.

(See Bronzing Liquids.)

LIQUIDAMBAR.—A balsam which exudes from the bark of a native of the United States and Mexico. Another species grows in southern Asia Minor and Syria, and also yields a liquid balsam in abundance which is said to be the liquid storax of the Levant. This balsam is used by druggists and perfumers.

LIQUOR, Black, Iron.

Cowan, John, & Co., Ltd., Montreal, Que.
Standard Chemical, Iron & Lumber Co. of Canada, Ltd., Toronto, Ont.

LIQUORICE.—(See **LICORICE.**)

LISTS, Mailing.

Migh Directories, Ltd., Toronto, Ont.

LITCHI, or Lychee. The fruit of a tree of the order Sapindaceæ, which grows in China, Cochin-China, and the Malay Archipelago. Those of the Malay Peninsula and Archipelago, and of southern China, also bear fruits which are eaten in those countries.

LITHARGE.—(See **LEAD.**)

LITHARGE.

Carter White Lead Co., of Canada, Ltd., Montreal, Que.

LITHIUM.—The lightest metal known. It occurs in small quantities in Sweden, Cornwall, the United States, &c. The carbonate of lithia is frequently used in medicine, in the form of tablets or in aerated water.

LITHOFRACTEUR.—An explosive composed of coal dust, sodium nitrate, sulphur, sand, and nitro-glycerine.

LITHOGRAMS.

Auld Mucilage Co., The, Montreal, Que.

LITHOGRAPHERS.

Alexander & Cable Lithographing Co., Ltd., Toronto, Ont.
American Bank Note Co., Ottawa, Ont.
Atlantic Lithographing Co., St. John, N.B.
Benallack Lithographing & Printing Co., Ltd., Montreal, Que.
British American Bank Note Co., Ltd., Montreal.
Bulman Bros., Ltd., Winnipeg, Man.
Busines Systems, Ltd., Toronto, Ont.
Canada Lithographing Co., Toronto, Ont.
Colonist Printing & Publishing Co., Ltd., Victoria, B.C.
Consolidated Lithographing & Mfg. Co., Ltd., Montreal, Que.
Copp, Clark Co., Ltd., The, Toronto, Ont.
Crown Lithographing Co., Ltd., Ottawa, Ont.
Davis & Henderson, Ltd., Toronto, Ont.
Dominion Litho. Co., The, Montreal, Que.
Duncan Lithographing Co., Ltd., Hamilton, Ont.
Gilmour, J. T., & Co., Montreal, Que.
Harcourt, The, E. H., Co., Ltd., Toronto, Ont.
Harris Lithographing Co, Toronto, Ont.
Hart, S. R., & Co., Toronto ,Ont.
Hough Lithographing Co., Ltd., Toronto, Ont.
Howell Lithographic Co., Ltd., Hamilton, Ont.
Laidlaw Litho. Co., Ltd., Hamilton, Ont.
Lawson & Jones, Ltd., London, Ont.
London Printing & Lithographing Co., Ltd., London, Ont.
McAlpine Publishing Co., Ltd., Halifax, N.S.
Montreal Lithographing Co., Ltd., Montreal.
Moore Print Shop, Ltd., Toronto, Ont.
Morrison, The J. L., Co., Toronto, Ont.
Mortimer & Co., Ltd., Ottawa, Ont.
Ottawa Photo Engraving Co., Ottawa, Ont.
Reid Press, Ltd., The, Hamilton, Ont.
Rolph & Clark, Ltd., Toronto, Ont.
Scott, Noble, Ltd., Toronto, Ont.
Simcoe Litho. Co., Ltd., The, Simcoe, Ont.
Smith, The David, Engraving & Lithographing Co., Toronto, Ont.
Stone, Ltd., Toronto, Ont.
Stovel Company, Winnipeg, Man.

LITHOGRAPHERS, Tinware.

Aluminum & Crown Stopper Co., Toronto, Ont.
Davidson, The Thos., Mfg. Co., Ltd., Winnipeg, Man.
Macdonald Mfg. Co., Ltd., Toronto, Ont.

LITHOGRAPHIC STONES.—These fine-grained stones, composed of lime, clay, and siliceous earth, are found in many countries, both in Europe and North America, but the best are obtained from the quarries of Solnhofen in Bavaria. They are cut in slabs 2 to 5 inches thick, and are buff or bluish grey in color.

LITMUS.—A colouring matter prepared from several lichens. It dyes mauve, and is used to make litmus paper, a valuable test of acids.

LLAMA.—A South American ruminant of the camel family. The hair is rougher than alpaca, but is likewise mixed with wool for the manufacture of cloth.

LOBSTER.—The common lobster is caught in the seas of northern Europe. The American lobster is caught off the coasts of Nova Scotia and New Brunswick and the northern states of America, and is tinned and exported. A third species found at the Cape of Good Hope, has smaller claws. The Norway lobster is preferred by some connoisseurs to the common lobster, while the spiny lobster is undoubtedly inferior. **(See FISH.)**

LOBSTERS, Canned.

Forhan, H. L., Eastern Harbor, N.S.
Longworth, H. D., Charlottetown, P.E.I.
Loggie, A & R., Loggieville, N.B.
Magee, Fred, Pictou, N.S.
McLennan & Redmond, River John, N.S.
Nickerson, F. T., Co., Clarke's Harbor, N.S.
Nova Canners, Halifax, N.S.
Prowse & Sons, Murray Harbor, P.E.I.
Windsor, J. W., Montreal, Que.

LOCKERS, Metal.

Canada Wire & Iron Goods Co., Hamilton, Ont.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Meadows, Geo. B. Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Steel & Radiation, Ltd., Toronto, Ont.

LOCKS, Cabinet, Cupboard, Drawer, Trunk and Suit Case.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Springer Lock Co., Ltd., Belleville, Ont.

LOCKS, Dead, Mortise, Cylinder, Door, Etc.

Beaver Brass Mfg. Co., Ltd., The, Toronto, Ont.
Belleville Hardware & Lock Mfg. Co., Ltd., Belleville, Ont.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Hope, Henry, & Sons, Ltd., Toronto, Ont.
National Hardware Co., Ltd., Orillia, Ont.
Peterborough Lock Mfg. Co., Ltd., Peterborough, Ont.
Springer Lock Co., Ltd., Belleville, Ont.
Schmidt & Company, Winnipeg, Man.

LOCOMOTIVES.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Locomotive Co., Ltd., Kingston, Ont.
Fleming, James, St. John, N.B.
Montreal Locomotive Works, Ltd., Montreal,

LOCOMOTIVES, Electric and Gasoline.

Canadian Crocker-Wheeler Co., Ltd., The, St. Catharines, Ont.
Canadian General Electric Co., Ltd., Toronto.
Jeffrey Mfg. Company, Montreal, Que.
Ottawa, Car Co., Ltd., Ottawa, Ont.

LOCUST TREE.—The thorn-acacia, a native of North America, and now cultivated in many temperate countries, yields a strong tough wood, called locust wood. Another kind of locust wood is furnished by a large tree growing in the West Indies and South America. It is turned to many purposes in America, and small quantities are exported to Europe. This tree also yields the greater part of the South American copal.

LOGGING, Locomotive.

Paquette, The Joseph, Company, Montreal, Que.

LOGS, Gas.

Campbell's, R., Sons, Hamilton, Ont.

LOGWOOD.—The heart-wood of a tree which grows in the West Indies and Central America. Hæmatein, a reddish-brown colouring matter, is extracted from it, and is used to produce purple, blue, lavender, &c. Extracts of logwood are also made for the use of dyers. The wood also enters into the composition of some inks.

LONGAN.—The fruit of a tree, smaller than the Litchi, which is a favourite fruit in China, and is also exported.

LONG PEPPER, a fruit which is cultivated in India and the Malay Archipelago. It is used in the East as a stimulant.

LOOFAH.—The fibrous part of the fruit of certain plants. The best is from Egypt, and is used as sponges, and in socks and baskets.

LOQUAT.—This fruit is borne by a tree closely allied to the medlar.

LORRIES, Spring.

Adams Wagon Co., Ltd., Brantford, Ont.
Bain Wagon Co., Ltd., Woodstock, Ont.
Campbell, Geo., & Sons, Ltd., Sackville, N.B.
Crossen Car Co., Ltd., Cobourg, Ont.
Jennings, A., & Co., Montreal, Que.
Latour & Frere, Lesage, Que.
Montreal Carriage Works, Montreal, Que.
Munro & McIntosh Carriage Co., Ltd., Alexandria, Ont.
Ottawa Car Co., Ltd., Ottawa, Ont.
Patterson, J. D., & Co., Hamilton, Ont.
Petrolia Wagon Co., Ltd., Petrolia, Ont.
Smith Brothers, Toronto, Ont.
Woodstock Wagon & Mfg. Co., Ltd., Woodstock, Ont.

LOTUS.—**(See DATE PLUMS and JUJUBE.)**

LOXA BARK.—Peruvian bark of superior quality from the province Loxa in Ecuador.

LUBRICATORS, Engine.

Canadian Detroit Lubricator Co., Ltd., Walkerville, Ont.
Cuthbert, W. R., & Co., Montreal, Que.
Hamilton Brass Mfg. Co., Ltd., Hamilton, Ont.
McAvity, T, & Sons, Ltd., St. John N.B.
Mitchell, The Robt.. Co., Ltd., Montreal, Que.
Morrison, The James, Brass Mfg. Co., Ltd., Toronto, Ont.
Penberthy Injector Co., Ltd., Windsor, Ont.

LUBRICATORS, Sight Feed and Force Feed.

Canadian Detroit Lubricator Co., Ltd., Walkerville, Ont.
Penberthy Injector Co., Ltd., Windsor, Ont.

LUCERNE, a papilionaceous plant allied to clover. Black Medick is grown for fodder, especially in North and South America.

LUCIFER MATCHES.—Matches dipped in chlorate of potash and sulphide of antimony and ignited on sandpaper. They are not much used now.

LUCRABAN.—An oil of uncertain origin exported from Siam. It is a remedy for skin diseases.

LUMBANG, or Lambang, a name for candlenuts.

LUMBER, Asbestos.

Asbestos Mfg. Co., Ltd., The, Montreal, Que.
Ormsby, A. B., Co., Ltd., Toronto, Ont.
Paquette, The Jos. Co., Montreal, Que.

LUMBER, Ash, Basswood, Elm, Balsam, Tamarac or Hemlock.

Ainsley, J. S., & Brother, Comber, Ont.
Baker Lumber Co., Lindsay, Ont.
Baptiste, Alex., Three Rivers, Que.
Barnet, A., Renfrew, Ont.
Bathurst Lumber Co., Ltd., Bathurst Village, N.B.
Beach, The M. F., Co., Winchester, Ont.
Beauce Pulp & Lumber Co., Quebec, Que.
Beatty, W., Parry Sound, Ont.
Beck, The C., Mfg. Co., Ltd., Penetaguishene, Ont.
Benson & Bray, Ltd., Midland, Ont.
Black, Jos., L., & Sons, Ltd., Sackville, N.B.
Bobcaygeon Lumber Co., The, Bobcaygeon, Ont.
Boyd, Mossom Co., Bobcaygeon, Ont.
Brennen, The M. & Sons, Mfg., Co., Ltd., Hamilton, Ont.
Brockville Lumber Co., Brockville, Ont.
Brompton Pulp & Paper Co., The, East Angus,
Bronson Lumber & Saw Mill Co., Ltd., Ottawa, Ont.
Burrill Lumber Co., Three Rivers, Que.
Calhoun Lumber Co., Calhoun, N.B.
Cameron & Co., Ottawa, Ont.
Canada Wood Speicalty Co., Ltd., Orillia, Ont.
Carew, John, Lumber Co., Ltd., Lindsay, Ont.
Carkner, D., & Co., Kenmore, Ont.
Chappell Bros. & Co., Ltd., Sydney, N.S.
Charlemange & Lac Ouareau Lumber Co., Montreal, Que.
Chew Bros. Lumber Co., The, Midland, Ont.
Conger Lumber Co., Ltd., Toronto, Ont.
Copping, Wm., Joliette, Que.
Crockett, Thos., Riviere du Loup Station, Que.
Crown Lumber Co., Ltd., Woodstock, Ont.
Cummings, A. H., & Co., Coaticook, Que.
Cutler Bay Lumber Co., Cutler, Ont.
Danville Lumber Co., The, Montreal, Que.
Davison Lumber Co., The, Bridgewater, N.S.
De Laplante, L. A., Ltd., Durham, Ont.
Duncan, J. W., Ltd., Montreal, Que.
Drader, Wm. W., Chatham, Ont.
Durham Furniture Co., Ltd., Durham, Ont.
Dyment-Baker Lumber Co., Londo,n, Ont.
Eagle Lumber Co., Ltd., The, Montreal, Que.
Eau Claire & Bow River Lumber Co., Calgary, Alta.
Edwards, W. C., & Co., Ltd., Ottawa, Ont.
Fassett Lumber C.o, Ltd., Fassett, Que.
Fesserton Timber Co., Ltd., The, Fesserton, Ont.
Fort Frances Sash & Door Co., Fort Frances, Ont.
Fraser, D. R., & Co., Ltd., Edmonton, Alta.
Gall Lumber Co., Ltd., The, Toronto, Ont.
Georgian Bay Shook Mills, Ltd., Midland, Ont.
Gillies Bros., Ltd., Braeside, Ont.
Gordon, Geo., & Co., Ltd., Cache Bay, Ont.
Graves, Bigwood & Co., Toronto, Ont.
Hancock, T. H., Toronto, Ont.
Hantsport Fruit Basket Co., Hantsport, N.S.
Harrison, John, & Sons, Co., Ltd., Owen Sound, Ont.
Hickman, C. S., Dorchester, N.B.
Hickson, W. A., Newcastle, N.B.
Keenan Bros., Ltd., Owen Sound, Ont.
Kastner Lumber Co., Wiarton, Ont.
Johnston, Hunter & Crawford, Wiarton, Ont.
Joly de Lotbiniere, A., Leclercville, Que.
Laidlaw, The R., Lumber Co., Ltd., Toronto, Ont.
Lake Superior Corporation, The, Sault Ste. Marie, Ont.
Laurentian Lumber Co., Ltd., The, Montreal,
Laurentide Co., Ltd., Montreal, Que.
Leduc & Fortin, Beauharnois, Que.
Little River Redwood Co., Ottawa, Ont.
Louison Lumber Co., Ltd., Jacquet River, N.B.
MacLaren, The Jas. Co., Ltd., Buckingham, Que.
McCamus & McKelvie, New Liskeard, Ont.
McClearn Co., Ltd., The, Liverpool, N.S.
McGibbon, F., & Son, Penetaguishene, Ont.
McKillop, A. & Sons, Ltd., West Lorne, Ont.
McLaren Lumber Co., Ltd., Brockville, Ont.
McLennan Lumber Co., Ltd., Montreal, Que.
Martin, W. J., & Co., Hillsdale, Ont.
Mickle, Dyment Co., Ltd., The, Barrie, Ont.
Miller, Charles, St. John, N.B.
Mills, A. D., & Sons, Ltd., Annapolis Royal, N.S.
Moirs, Ltd., Halifax, N.S.
Moore, John E., St. John, N.B.
Moore, Moulthrop Co., Ltd., Cartier, Ont.
Muskoka Wood Mfg. Co., Ltd., The, Huntsville, Ont.
Nesbitt, E. T., Quebec, Que.
North Channel Lumber Co., Ltd., Thessalon, Ont.
Ontario Wood Pump Co., Shakespeare, Ont.
Patterson-Tilley Co., The, Hamilton, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Parry Sound Lumber Co., Ltd., The, Toronto,
Peterboro Lumber Co., Ltd., The, Peterboro, Ont.
Prince Albert Lumber Co., Ltd., Prince Albert, Sask.
Pearce Co., Ltd., The, Marmora, Ont.
Piggott, John & Sons, Chatham, Ont.
Quance Brothers, Delhi, Ont.
Ransford, John, Box 29, Clinton, Ont.
Rastall, R. A., & Co., Toronto, Ont.
Rathbun Co., The, Deseronto, Ont.
Rixon, Ainslie, Stodart Co., Ltd., Owen Sound, Ont.
Rosedale Saw Mill Co., Ltd., The, Toronto, Ont.
Rutherford, The Wm., & Sons Co., Ltd., Montreal, Que.
Seaman, Kent Co., Ltd., Meaford, Ont.
Sharples, W. & J., Quebec, Que.
Sheppard, Jas., & Son, Sorel, Que.
Shortreed, G., Hillsdale, Ont.
Small & Bucklin Lumber Co., Ltd., New Westminster, B.C.
Smith, John B., & Sons, Ltd., Toronto, Ont.
Snowball, The J. B. Co., Ltd., Chatham, Ont.
Spanish River Lumber Co., Ltd., Massey, Ont.
Strong Lumber Co., Ltd., Orillia, Ont.
Sutherland, Innes Co., Ltd., The, Chatham, N.B.
Swedish Canadian Lumber Co., Ltd., Nordin, N.B.
Tennant, G. W., Bracebridge, Ont.
Timberland Lumber Co., New Westminster, B.C.
Turner Lumber Pulpwood Co., The, Quebec,
Vancouver Lumber Co., Ltd., Vancouver, B.C.
Villeneuve & Cie., St. Jerome, Que.
Warner & Co., St. John, N.B
Western Canada Timber Co, Ltd., Gerrard, B.C.
Williamson & Crombie, Kingsbury, Que.
York & Sunbury Milling Co., Ltd., Gibson, N.B.

LUMBER, Butternut, Cherry, Chestnut, Cypress.

Fassett Lumber C.o, Ltd., Fassett, Que.
Gall Lumber Co., Ltd., The, Toronto, Ont.
Johnston, Hunter & Crawford, Wiarton, Ont.

LUMBER, Cedar.

Adams, Burns, Co., Ltd., Bathurst, N.B.
Adams River Lumber Co., Ltd., The, Chase, B.C.
Ament, Philip, Brussels, Ont.
Bathurst Lumber Co., Ltd., Bathurst Village, N.B.
Boyd, Mossom Co., Bobcaygeon, Ont.
British Columbia Fir & Cedar Lumber Co., Ltd., Vancouver, B.C.
British Columbia Mills Timber & Trading Co., Vancouver, B. C.
Brompton Lumber Co., Victoria, B.C.
Brunette Saw Mill Co., Ltd., New Westminster, B.C.
Burrard Lumber Co., Ltd., The, Vancouver, B.C.
Cameron & Co., Ottawa, Ont.
Calhoun Lumber Co., Calhoun, N.B.
Canadian Pacific Lumber Co, Ltd., Vancouver, B.C.
Canadian Southern Lumber Co., Ltd., Victoria, B.C.
Canadian Western Lumber Co., Ltd., Fraser Mills, B. C.
Carkner, D., & Co., Kenmore, Ont.

Cascade Mills, Ltd., Vancouver, B.C.
Chaleur Bay Mills, Restigouche, Que.
Chalifour, O., Quebec, Que.
Chandler & Jones Lumber Co., Snow Road, Ont.
Chaudiere Lumber Co., Chaudiere Jct., Que.
Crockett, Thos., Riviere du Loup Station, Que.
Colonial Lumber Co., Ltd., The, Pembroke, Ont.
Columbia River Lumber Co., Ltd., Golden, B.C.
Crothers Lumber Co, Ltd., Cranbrooke, B.C.
Dalhousie Lumber Co., Ltd., The, Dalhousie, N.B.
Deschamps, J., Rossland, B.C.
East Kootenay Lumber Co., Ryan, B.C.
Eau Claire & Bow River Lumber Co., Calgary, Alta.
Eburne Saw Mills, Eburn, B.C.
Edwards, W. C., & Co., Ltd., Ottawa, Ont.
Elk Lumber Co., Ltd., The, Fernie, B.C.
False Creek Lumber Co., Vancouver, B.C.
Fenderson, John, & Co. Int., Sayabec, Que.
Fernridge Lumber Co., Fernie, B.C.
Fernie Lumber Co., Fernie, B.C.
Flewelling Mfg. Co., Hampton, N.B.
Forest Mills of British Columbia, Ltd., Revelstoke, B.C.
Graves, Bigwood & Co., Toronto, Ont.
Hancock, T. H., Toronto, Ont.
Harris Tie & Lumber Co., Ottawa, Ont.
Hastings Shingle Mfg. Co., Ltd., The, Vancouver, B.C.
Island Lumber Co., Duncans, B.C.
Jewell Lumber Co., Ltd., Hanbury, B.C.
Johnston & Carswell, Ltd., Vernon, B.C.
Johnson, Hunter & Crawford, Wiarton, Ont.
Kastner Lumber Co., Wiarton, Ont.
Keenan Bros., Ltd., Owen Sound, Ont.
Keewatin Lumber Co., Ltd., Keewatin, Ont.
Kerr, J. & J., Co., Ltd., Petrolia, Ont.
King Lumber Co., Yahk, BC
King Lumber Mills Co, Ltd., The, Cranbrooke, B.C.
Lake Superior Corporation, The, Sault Ste. Marie, Ont.
Lambert, A. G., & Co,, Nelson, B.C.
Leask & Johnstone, Elko, B.C
Leigh, Jas & Sons, Victoria, B.C.
Lemon, Gonnason & Co., Victoria, B. C.
Lotbiniere Lumber Co., Lyster Mills, Que.
Lumby Saw Mill Co., Lumby, B.C.
Manitoulin Lumber Co., Ltd., Walkerville, Ont.
McClearn Co., Ltd., The, Liverpool, N.S.
Mason, Gordon & Co., Montreal, Que.
McGibbon, F., & Son, Sarnia, Ont.
McInnes, M., Crow's Nest, B.C.
McLaurin, John R., Vankleek Hill, Ont.
Metis Lumber Co., The, Price, Que.
Molson, John W., Ste. Hippolyte, Que.
Monarch Lumber Co., The, Savona, B.C.
Moresby Island Lumber Co., Ltd., Skidgate, B.C.
Moore, Whittington Lumber Co., Ltd., Victoria, B.C.
Murray & Gregory, Ltd., St. John, N.B.
Nesbitt, E. T., Quebec, Que.
New Ladysmith Lumber Co, Ltd., Nanaimo, B.C.
North Pacific Lumber Co., Ltd., The, Barnet, B.C.
Okanagan Lumber Co., Okanagan Landing, B.C.
Okanagan Saw Mills Co., Enderby, B.C.
Ontario Wood Pump Co., Shakespeare, Ont.
Otis Staples Lumber Co., Ltd., Wycliffe, B.C.
Paquet & Godbout, St. Hyacinthe, Que.
Parrsboro Lumber Co., Parrsboro, N.S.
Penticton Lumber Co., Penticton, B.C.
Paugh & Livingstone Lumber Co., Ltd., The, Dorr, B.C.
Quincy Adams Lumber Co., Ltd., Toronto, Ont.
Rastall, R. A., & Co., Toronto, Ont.
Rat Portage Lumber Co., Ltd., Kenora, Ont.
Ritchie, D. & J. Co., Newcastle, N.B
Riverside Lumber Co, Ltd., Oromocto, N.B.
Robertson & Hackett, Vancouver, B.C.
Rock Creek Lumber Co., Elko, B.C.
Salmon River Lumber & Shingle Co., Vancouver, B.C.
Shawinigan Lake Lumber Co., Ltd., The, Victoria, B.C.
Sherbrooke Lumber Co., Sherbrooke, Que.
Shevlin Clark Co., Ltd., Fort Farnces, Ont.
Shields Lumber Co., Ltd., Kamloops, B.C.
Small & Bucklin Lumber Co., Ltd., New Westminster, B.C.

Smith, S. C., Lumber Co., Vernon, B.C.
South Shore Lumber Co., The, Vancouver, B.C.
Sovereign Lumber Co., Ltd., The, Annis, B.C.
Sprague Lumber Co., Ltd., Winnipeg, Man.
Standard Lumber Co., Cranbrooke, B.C.
Swanson Bay Forest Wood Pulp Lumber Mills, Ltd., Swanson Bay, B.C.
Swedish Canadian Lumber Co., Ltd., Nordin, N.B.
Taylor Lumber Co., Kimberly, B.C.
Taylor Mill Co., Ltd., Victoria, B.C.
Tennant, G. W., Bracebridge, Ont.
Terminal Lumber & Shingle Co., Ltd., Vancouver, B.C.
Thompson River Lumber Co., Kamloops, B.C.
Thurston, Flavelle Lumber Co., Port Moody, B.C.
Timberland Lumber Co., New Westminster, B.C.
Trenholme, T. A., Montreal West, Que.
Tyee Siding Lumber Co., Tyee Siding, B.C.
Vancouver Lumber Co., Ltd., Vancouver, B.C.
Victoria Lumber & Mfg. Co., Lo., Chemainus,
Victoria Lumber & Mfg. Co., Lo., Chemainus, B.C.
Villeneuve, L., & Co., Montreal, Que.
Western Canada Timber Co, Ltd., Gerrard, B.C.
Wolverine Cedar & Lumber Co., Ltd., Webbwood, Ont.
Yahk Lumber Co., Ltd., The, Yahk, B.C.

LUMBER, Pine.

Abel-Fortin, J. P., & Co., Montreal, Que.
Adams, Burns, Co., Ltd., Bathurst, N.B.
Adams River Lumber Co., Ltd., The, Chase, B.C.
Adolph River Lumber Co., The, Baynes, B.C.
Allen, Afl W., & Son, Middleton, N.S.
Ament, Philip, Brussels, Ont.
Armstrong Saw Mill, Armstrong, B.C.
Atkinson, H., Etchemin Bridge, Que.
Atlantic Lumber Co., Gibson, N.B.
Babbit Lumber Co., Gibson, N.B.
Baker Lumber Co., Waldo, B.C.
Baldwin, O'Brien & Co., St. George, N.B.
Barnet, A., Renfrew, Ont.
Bathurst Lumber Co., Ltd., Bathurst Village, N.B.
Beach, The, M. F. Co., Ltd., Winchester, Ont.
Beck, The C., Mfg. Co., Ltd., Penetaguishene, Ont.
Beatty, W., Parry Sound, Ont.
Belgo-Canadian Pulp & Paper Co., Ltd., Shawinigan Falls, Que.
Bell Lumber Co., Ltd., Florenceville, N.B.
Benjamin, S. P., Co., Ltd, Wolfville, N.S.
Benoit & Fils, Montreal, Que.
Benson & Bray, Ltd., Midland, Ont.
Big River Lumber Co., Ltd., Prince Albert, Sask.
Black, Jos. L., & Sons, Ltd., Sackville, N.B.
Booth, J. R., Ottawa, Ont
Booth, The W., Lumber Co., Ltd., Toronto, Ont.
Booth & Shannon, Biscotasing, Ont.
Bowman Sine Lumber Co., Ltd., Calgary, Alta.
Brandon Construction Co., Ltd., Brandon, Man.
Breakey, John, The, Estate of, Breakeyville, Que.
Brennen, The M. & Sons, Mfg., Co., Ltd., Hamilton, Ont.
British Canadian Lumber Corporation, Ltd., Vancouver, B.C.
Brockville Lumber Co., Ltd., Brockville, Ont.
Brompton Pulp & Paper Co., The, East Angus,
Bronson Lumber & Saw Mill Co., Ltd., Bruce Mines, Ont.
Bryan Mfg. Co., Ltd., Collingwood, Ont.
Burchill & Sons, Nelson, N.B.
Burrill Lumber Co., Three Rivers, Que.
Calhoun Lumber Co., Calhoun, N.B.
Cameron Brothers, West River Station, N.S.
Cameron & Co., Ottawa, Ont.
Cameron Lumber Co., Victoria, B.C .
Campbell Lumber Co., Ltd., The, Weymouth, N.S.
Canada Pine Lumber Co., Ltd., The, Hamilton, Ont.
Canadian Puget Sound Lumber Co., Victoria, B.C.
Canadian Southern Lumber Co., Ltd., Victoria, B.C.

Carew, John, Lumber Co., Ltd., Lindsay, Ont.
Carkner, D., & Co., Kenmore, Ont.
Carney Lumber Co., Ltd., Parry Sound, Ont.
Carss, The, S. E. Lumber Co., Ltd., Orillia, Ont.
Cascapedia Mfg. & Trading Co., Chaleures, Que
Cavendish Lumber Co., Ltd., Wakefield, Ont.

Chaleur Bay Mills, Restigouche, Que.
Chalifour, O., Quebec, Que.
Charlemange & Lac Ouareau Lumber Co., Montreal, Que.
Chaudiere Lumber Co., Chaudiere Jct., Que.
Chappell Bros. & Co., Ltd., Sydney, N.S.
Charlton Saw Mill Co., Ltd., The, Collingwood, Ont.
Chew Bros. Lumber Co., The, Midland, Ont.
Church & Fee, Ltd, Montreal, Que
Cleveland-Sarnia Saw Mills Co., Ltd., Sarnia, Ont.
Cole, S., Point Fortune, Que.
Colonial Lumber Co., Ltd., The, Pembroke, Ont.
Collins Inlet Lumber Co., Ltd., Toronto, Ont.
Columbia River Lumber Co., Ltd., Golden, B.C.
Conger Lumber Co., Ltd., Toronto, Ont.
Conklin Planing Mills, Kemptville, Ont.
Copping, Wm., Joliette, Que.
Couture & Rheault, Disraeli, Que.
Craig, Thomas M., Sherbrooke, Que.
Crothers Lumber Co, Ltd., Cranbrooke, B.C.
Crow's Nest Pass Lumber Co., Ltd., Wardner, B.C.
Cummings, A. H., & San, Coaticook, Que.
Dalhousie Lumber Co., Ltd., The, Dalhousie, N.B.
Danville Lumber Co., The, Montreal, Que.
Davidson, Jas., Ottawa, Ont.
Davison Lumber Co., The, Bridgewater, N.S.
De Laplante, L. A., Ltd., Durham, Ont.
Demers, Paul, Montreal, Que.
Deschamps, J., Rossland, B.C.
Disraeli Box Co., Inc., Disraeli, Que.
Dryden Timber & Power Co., Ltd., Dryden, Ont.
Dumm, S. E., Lumber Co., Upper Kennetcook, N.S.
Dyment-Barker Lumber Co., London, Ont.
Eagle Lumber Co., Ltd., The, Montreal, Que.
East Kootenay Lumber Co., Ltd., Jaffray, B.C.
East Kootenay Lumber Co., Ryan, B.C.
Eau Claire & Bow River Lumber Co., Calgary, Alta.
Eburne Saw Mills, Eburn, B.C.
Eddy Brothers & Co., Ltd., Blind River, N.B.
Eddy, George & Co., Ltd., Bathurst, N.B.
Edwards, W. C., & Co., Ltd., Ottawa, Ont.
Elliott, James S., & Sons, Prescott, Ont.
Emberton Lumber Co., St. Victor de Tring, Que.
Empire Lumber Co., Ltd., The, Toronto, Ont.
Esplin, G. & J., Montreal, Que.
Evans Co., Ltd., The, Sudbury, Ont.
Fassett Lumber Co., Ltd., Fassett, Que.
Fenderson, John, & Co, Inc., Sayabec, Que.
Ferguson & McFadden, Renfrew, Ont.
Fesserton Timber Co., Ltd., The, Fesserton, Ont.
Finlay, J. & Sons, Co., Norwood, Ont.
Firstbrook Brothers, Ltd., Toronto, Ont.
Fleming & Gibson, Ltd., Hartland, Ont.
Flewelling Mfg. Co., Hampton, N.B.
Forest Mills of British Columbia, Ltd., Revelstoke, B.C.
Fort Frances Sash & Door Co., Fort Frances, N.B.
Frasers, Ltd., Fredericton, N.B.
Frechette, Louis J., St. Ferdinand, Que.
Fredette, C., St. Johns, Que.
Galbraith, David, Sherbrooke, Que.
Gall Lumber Co., Ltd., The, Toronto, Ont.
Georgian Bay Shook Mills, Ltd., Midland, Ont.
Gignac, J. H., Ltd., Quebec, Que.
Gillies Bros., Ltd., Braeside, Ont.
Gilmour & Hughson, Ltd., Hull, Que.
Globe Lumber Co., Calgary, Alta.
Gloucester Lumber & Trading Co., Bathurst, N.S.
Gravel, The, A., Lumber Co., Ltd., Etchemin, Que.
Graves, Bigwood & Co., Toronto, Ont.
Gres Falls Lumber Co., Three Rivers, Que.
Grier, G. A., & Sons, Ltd., Montreal, Que.
Hadley, The S. Lumber Co., Ltd., Chatham, Ont.
Hancock, T H., Toronto, Ont.
Harris Tie & Lumber Co., Ottawa, Ont.
Harrison, John, & Sons, Co., Ltd., Owen Sound, Ont.
Hawkesbury Lumber Co., Ltd., Hawkesbury, Ont.
Hesson, W. J., & Co., Sault Ste. Marie, Ont.
Hickman, C. S., Dorchester, N.B.
Hickman, J. & C., Ltd., Dorchester, N.B.
Hickson, W. A., Newcastle, N.B.
Hood, W. J., Winnipeg, Man
Hope Lumber Co., Blind River, Ont.
Huntsville Lumber Co., Huntsville, Ont.
Hutchinson Lumber Co., Douglastown, N.B .
Ideal Sash Door & Lumber Co., Montreal.
Island Lumber Co., Duncans, B.C.
Jacques Cartier, La Compagnie a Bois, Pont Rouge, Que.
Jewell Lumber Co., Ltd., Hanbury, B.C.
Johnston, Hunter & Crawford, Wiarton, Ont.
Joly de Lotbiniere, A., Leclercville, Que.
Kastner Lumber Co., Wiarton, Ont.
Kaufman, Jacob, Berlin, Ont.
Keenan Bros., Ltd., Owen Sound, Ont.
Keewatin Lumber Co., Ltd., Keewatin, Ont.
Kelowna Saw Mill Co., Ltd., Kelowna, B.C.
Kerr, J. & J., Co., Ltd., Petrolia, Ont.
King Lumber Co., Yahk, BC
King, M. B., Lumber Co., Dennison, B.C.
King Lumber Mills Co, Ltd., The, Cranbrooke,
Kirk, D. G., Woodworking & Contracting Co., Antigonish, N.S.
Koch, Wm. C. E, Nelson, B.C.
Laidlaw, The R., Lumber Co., Ltd., Toronto, Ont.
Lake Superior Corporation, The, Sault Ste. Marie, Ont.
Lake Superior Paper Co., Ltd., Sault Ste. Marie, Ont.
Laking, The, Wm. Lumber Co., Toronto, Ont.
Lambert, A. G., & Co., Nelson, B.C.
Lantz Bros. & Co., Milford Station, N.S.
Laurentian Lumber Co., Ltd., The, Montreal,
Laurentide Co., Ltd., Montreal, Que.
Leask & Johnstone, Elko, B.C
Leduc & Fortin, Beauharnois, Que.
Leigh, Jas & Sons, Victoria, B.C.
Likely, Joseph A., St. John, N.B.
Little River Redwood Co., Ottawa, Ont.
Loggie, W. S., Co., Ltd, Chatham, Ont
Logue & Cox, Maniwaki, Que
Lotbiniere Lumber Co., Lyster Mills, Que.
Louison Lumber Co., Ltd., Jacquet River, N.B.
Lovell, Henry & Sons, Coaticook, Que.
Lumby Saw Mill Co., Lumby, B.C.
Lumsden, John, Ottawa, Ont.
Lussier, Albert, Varennes, Que.
Lynch, John & Son, Ltd., Halifax, N.S.
McInnes, M., Crow's Nest, B.C.
MacLaren, The Jas. Co., Ltd., Buckingham, Que.
MacKie, A. T., & Co., Pembroke, Ont.
Manitoulin Lumber Co., Ltd., Walkerville, Ont.
Maritime Lumber Co., Ltd., Halifax, N.S.
Martin, W. J., & Co., Hillsdale, Ont
Mason, Gordon & Co., Montreal, Que.
Massue, P H., & Co., Rawdon, Que.
Matthews, Sash & Door Co., Fort William, Ont.
McArthur, J. D. Co., Ltd., Winnipeg, Man.
McCamus & McKelvie, New Liskeard, Ont.
McDonald, J. H., Blind River, Ont.
McFadden & Mallory, Webbwood, Ont.
McFarlane, R., & Co., Ltd., Montreal, Que.
McGibbon, F., & Son, Penetaguishene, Ont.
McGibbon, P. A., Lachute Mills, Que.
McGibbon, F., & Sons, Sarnia, Ont.
McKillop, A. & Sons, Ltd., West Lorne, Ont.
McInnes, M., Crow's Nest, B.C.
McLachlin Bros., Ltd., Arnprior, Ont.
McLaren Lumber Co., Ltd., Brockville, Ont.
McLaren, Peter, Perth, Ont.
McLaurin, John R., Vankleek Hill, Ont.
McLearn Company, Ltd., Liverpool, N.S.
McLennan Lumber Co., Ltd., Montreal, Que.
McMillan Co., Ltd., The, Durham Centre, Ont.
McMullen, T. J., Truro, N.S.
Mickle, Dyment Co., Ltd., The, Barrie, Ont.
Midland Lumber Co, Ltd., Midland, Ont.
Miller, W. H., Campbellton, N.B.
Miller, Lewis & Co., Ltd., Ingram Port, N.S.
Miller, Moore Lumber Co., St. John, N.B
Mills, A. D., & Sons, Ltd., Annapolis Royal, N.S.
Miramichi Lumber Co., Ltd., Chatham, N.B.
Moirs, Ltd., Halifax, N.S.
Molson, John W., Ste. Hippolyte, Que.
Monarch Lumber Co., The, Savona, B.C.
Montgomery & Sons, Co., Ltd., New Richmond, Que.
Moore, John E., St. John, N.B.
Moore, John E., St. John, N.B.
Moore, Moulthrop Co., Ltd., Cartier, Ont.
Moresby Island Lumber Co., Ltd., Skidgate,
Morin Freres, Montreal, Que.
Mowat, R. A., Campbellton, N.B.
Murchie's, Jas, Sons Cofifi Edmundston, N.B.
Murray & Gregory, Ltd., St. John, N.B.

Naashwaak Lumber Co., Ltd., Marysville, N.B.
Neville, Robt., Jr., Montreal, Que.
Nesbitt, R, Uxbridge, Ont.
Nicola Valley Pine Lumber Co., Canford, B.C.
Nesbitt, E. T., Quebec, Que.
North Star Lumber Co., Elko, B.C.
North Channel Lumber Co., Ltd., Thessalon, Ont.
Nova Scotia Lumber Co., Ltd., Amherst, N.S.
Okanagan Saw Mills Co., Enderby, B.C.
Ontario Wood Pump Co., Shakespeare, Ont.
Ontario Slocan Lumber Co., Ltd., Orillia, Ont.
Otis Staples Lumber Co., Ltd., Wycliffe, B.C.
Pickles, The F. W., Co., Annapolis Royal, N.S.
Paquet & Godbout, St. Hyacinthe, Que.
Parrsboro Lumber Co., Parrsboro, N.S.
Parry Sound Lumber Co., Ltd., The, Toronto,
Patterson-Tilley Co., The, Hamilton, Ont.
Paugh & Livingstone Lumber Co., Ltd., The,
Pearce Co., Ltd., The, Marmora, Ont.
Pembroke Lumber Co., The, Pembroke, Ont.
Penticton Lumber Co., Penticton, B.C.
Peter, Wm., Parry Sound, Ont.
Peterboro Lumber Co., Ltd., The, Peterboro, Ont.
Pope, F. M., Sons, Bury, Que.
Porto Rico Lumber Co., Ltd., The, Moyle, B.C.
Potter, Wm. & Son, Tottenham, Ont
Powell Lumber & Door Co., Ltd., Toronto, Ont.
Prescott Lumber Co., Ltd., New Mills, N.B.
Pugsley, J. Newton, Parrsboro, N.S.
Pigeon River Lumber Co., Port Arthur, Ont.
Piggott, John & Sons, Chatham, Ont.
Playfair & White, Midland, Ont.
Quance Brothers, Delhi, Ont.
Quincy Arams Lumber Co., Ltd., Toronto. Ont.
Quinn, B. & Co., Windsor Mills, Que.
Rainy River Lumber Co., Ltd., Rainy River, Ont.
Rastall, R. A., & Co., Toronto, Ont.
Rathbun Co., The, Deseronto, Ont.
Rat Portgae Lumber Co., Ltd., Kenora, Ont.
Renous Bridge Lumber Co., Indiantown, N.B.
Rhodes, Curry Co., Ltd., Amherst, N.S.
Richelieu Lumber Co., Ltd., Montreal, Que.
Rideau Lumber Co., Ltd., The, Ottawa, Ont.
Ritchie, D. & J. Co., Newcastle, N.B
Ritchie, R. & T., Ltd., Aylmer, Que.
River Valley Lumber Co., Ltd., Oromocto, N.B.
Riverside Lumber Co., Ltd., Calgary, Alta.
Riverside Lumber Co, New Michel, B.C.
River Ouelle Pulp & Lumber Co., The, St. Pacome, Que.
Rixon, Ainslie, Stoddart Co., Ltd., Owen Sound, Ont.
Robinson, Jas., Millerton, N.B.
Rock Creek Lumber Co., Elko, B.C.
Rood & McGregor, New Glasgow, N.S.
Rosedale Saw Mill Co., Ltd., The, Toronto, Ont.
Ross, Saskatoon Lumber Co., Waldo, B.C.
Rousseau, J. A., St. Anne de la Perade, Que.
Rutherford, The Wm., & Sons Co., Ltd., Montreal, Que.
Sable Lumber Co, Ltd., Wilkin's Siding, N.S.
St. Gabriel Lumber Co., Ltd., St. Gabriel de Brandon, Que
Sharples, W. & J., Quebec, Que.
St Maurice Lumber Co., The, Three Rivers, Que.
St. Simeon Lumber Co., Ltd., St. Hyacinthe, Que.
Sayre, F. E., & Co., Ltd., St. John, N.B.
Shawinigan Lake Lumber Co., Ltd., The, Victoria, B.C.
Shearer, The Jas Co., Ltd., Montreal, Que.
Sheppard & Morse Lumber Co., The, Ottawa, Ont.
Sheppard, Jas. & Son, Sorel, Que.
Sherbrooke Lumber Co., Sherbrooke, Que.
Shortreed, G., Hillsdale, Ont.
Shevlin Clark Co., Ltd., Fort Farnces, Ont.
Shields Lumber Co., Ltd., Kamloops, B.C.
Shives Lumber Co., Ltd., Campbellton, NB.
Sinclair Lumber Co., Newcastle, N.B.
Smith, John B., & Sons, Ltd., Toronto, Ont.
Smith, S. C., Lumber Co., Vernon, B.C.
Snowball, The J. B. Co., Ltd., Chatham, Ont.
Sovereign Lumber Co., Ltd., The, Annis, B.C.
Spanish River Lumber Co., Ltd., Massey, Ont.
Sparwood Lumber Co., Ltd., Sparwood, B.C.
Sprague Lumber Co., Ltd., Winnipeg, Man.
Standard Mills Co., Montreal, Que.
Standard Lumber Co., Cranbrooke, B.C.
Stehelin, Emile, Weylouth, N.S.
Stetson, Cutler Co., St. John, N.B.
Stewart, Robt., Ltd., Guelph, Ont
Stewart, Walter & Sons, Lucknow, Ont.
Stone, Grant, Lumber Co., Cutler, Ont.
Strong Lumber Co., Ltd., Orillia, Ont.
Sunset Lumber Co., Brandner, B.C.
Swedish Canadian Lumber Co., Ltd., Nordin, N.B.
Sydney Lumber Co., Dalhousie, N.B.
Tavistock, Milling Co., Ltd., The, Tavistock, Ont.
Taylor Lumber Co., Kimberly, B.C.
Taylor Mill Co., Ltd., Victoria, BC
Tennant, G. W., Bracebridge, Ont.
Thompson Lumber Co, Havelock, Ont.
Thompson River Lumber Co., Kamloops, B.C.
Tourville Lumber Mills Co., Montreal, Que.
Traversy, V. E., Montreal, Que.
Turner Lumber Co., Ltd., The, Toronto, Ont.
Turner Lumber Pulpwood Co., The, Quebec, Que.
Tyee Siding Lumber Co., Tyee Siding, B.C.
Vancouver Lumber Co., Ltd., Vancouver, B.C.
Victoria Harbour Lumber Co., Ltd., The, Toronto, Ont.
Victoria Lumber & Mfg. Co., Chremainus.
Vigars-Shear Lumber Co., Ltd., Port Arthur, Ont.
Villeneuve & Cie., St. Jerome, Que.
Villeneuve, L. & Co., Ltd., Montreal, Que.
Walton, Geo., & Co., Ltd., Belleville, Ont.
Warner & Co., St. John, N.B
Wattsburg Lumber Co, Ltd., The, Wattsburg, B.C.
Welsh, Michael, Bristol, N.B.
Western Canada Timber Co, Ltd., Gerrard, B.C.
Winnipeg Lumber Co., The, Winnipeg, Man.
White Pine Lumber Co., The, Blind River, Ont.
Wolverine Cedar & Lumber Co., Ltd., Webbwood, Ont.
Woodstock Woodworking Co., Ltd., Woodstock, N.B.
Woodworkers, Ltd., Victoria, B.C
York & Sunbury Milling Co., Ltd., Gibson, N.B. B.C.

LUMBER, Douglas Fir.

Abbotsford Timber & Trading Co., Ltd., Abbotsford, B.C.
Adams River Lumber Co., Ltd., The, Chase, B.C.
Adolph Lumber Co., The, Baynes Lake, B.C.
Alberta Lumber Co., Ltd., Vancouver, B.C
Armstrong Saw Mill, Armstrong B.C.
Baker Lumber Co., Lindsay, Ont.
British Canadian Lumber Corporation, Ltd., Vancouver, B. C.
British Columbia Mills Timber & Trading Co., Vancouver, B. C.
Brockville Lumber Co., Brockville, Ont.
Brunette Saw Mill Co., Ltd., New Westminster, B.C.
Burrard Lumber Co., Ltd., The, Vancouver, B.C.
Cameron Lumber Co., Victoria, B.C.
Canadian Pacific Lumber Co, Ltd., Vancouver, B.C.
Canadian Puget Sound Lumber Co., Victoria, B.C.
Canadian Southern Lumber Co., Ltd., Victoria, B.C.
Canadian Western Lumber Co., Ltd., Fraser Mills, B. C.
Cascade Mills, Ltd., Vancouver, B.C.
Columbia River Lumber Co., Ltd., Golden, B.C.
Crothers Lumber Co, Ltd., Cranbrooke, B.C.
Crow's Nest Pass Lumber Co., Ltd., Wardner, B.C.
Deschamps, J., Rossland, B.C.
East Kootenay Lumber Co., Ryan, B.C.
East Kootenay Lumber Co., Ltd., Jaffray, B.C.
Eau Claire & Bow River Lumber Co., Calgary, Alta.
Eburne Saw Mills, Eburn, B.C.
Elk Lake Co., Ltd., The, Fernie, B.C.
Fernie Lumber Co., Fernie, B.C.
Fernbridge Lumber Co., Fernie, B.C.
Forest Mills of British Columbia, Ltd., Revelstoke, B.C.
Hanbury, J. & Co., Ltd., Vancouver, B.C.
Hastings Shingle Mfg. Co., Ltd., The, Vancouver, B.C.
Island Lumber Co., Duncans, B.C.
Jewell Lumber Co., Ltd., Hanbury, B.C.
Johnston & Carswell, Ltd., Vernon, B.C.
Kelowna Saw Mill Co., Ltd., Kelowna, B.C.
Kerr, J. & J., Co., Ltd., Petrolia, Ont.

King Lumber Co., Yahk, B.C.
King, M. B., Lumber Co., Dennison, B.C.
King Lumber Mills Co., Ltd, The, Cranbrook, B.C.
Koch, Wm., C. E., Nelson, B.C.
Lambert, A. G., & Co., Nelson, B.C.
Leask & Johnstone, Elko, B.C
Leigh, Jas & Sons, Victoria, B.C.
Lemon, Gonnason & Co., Victoria, B. C.
Lumby Saw Mill Co., Lumby, B.C.
Mason, Gordon & Co., Montreal, Que.
Monarch Lumber Co., The, Savona, B.C.
Moore, Whittington Lumber Co., Ltd., Victoria, B.C.
Moresby Island Lumber Co., Ltd., Skidgate, B.C.
New Ladysmith Lumber Co, Ltd., Nanaimo, B.C.
North Pacific Lumber Co., Ltd., The, Barnet,
North Star Lumber Co, Elko, B.C.
Okanagan Lumber Co., Okanagan Landing, B.C.
Okanagan Saw Mills Co., Enderby, B.C.
Otis Staples Lumber Co., Ltd., Wycliffe, B.C.
Penticton Lumber Co., Penticton, B.C.
Porto Rico Lumber Co., Ltd., The, Moyie, B.C.
Paugh & Livingstone Lumber Co., Ltd., The,
Rat Portage Lumber Co., Ltd., Kenora, Ont.
Reliance Sash & Door Co., Vancouver, B.C.
River Valley Lumber Co., Ltd., Oromocto, N.B.
Riverside Lumber Co., New Michel, B.C.
Robertson & Hackett, Vancouver, B.C.
Rock Creek Lumber Co., Elko, B.C.
Ross Saskatoon Lumber Co, Waldo, B.C.
Salmon River Lumber & Shingle Co., Vancouver, B.C.
Shawinigan Lake Lumber Co., Ltd., The, Victoria, B.C.
Shields Lumber Co., Ltd., Kamloops, B.C.
Small & Bucklin Lumber Co., Ltd., New Westminster, B.C.
Smith, S. C., Lumber Co., Vernon, B.C.
South Shore Lumber Co, The, Vancouver, B.C.
Sprague Lumber Co., Ltd., Winnipeg, Man.
Sovereign Lumber Co., Ltd., The, Annis, B.C.
Sparwood Lumber Co., Ltd., Sparwood, B.C.
Sunset Lumber Co., Bradner, B.C.
Taylor Mills Co, Ltd., Victoria, B.C.
Taylor Lumber Co., Kimberly, B.C.
Terminal Lumber & Shingle Co., Ltd., Vancouver, B.C.
Thompson River Lumber Co., Kamloops, B.C.
Timberland Lumber Co., New Westminster, B.C.
Tyee Siding Lumber Co., Tyee Siding, B.C.
Vancouver Lumber Co., Ltd., Vancouver, B.C.
Victoria Lumber & Mfg Co., Ltd., Chemanus, B.C.
Wattsburg Lumber Co., Ltd., Gerrard, B.C.
Western Canada Timber Co, Ltd., Gerrard, B.C.
Yahk Lumber Co., Ltd., The, Yahk, B.C.

LUMBER, Dressing in Transit.

Evans Co., Ltd., The, Sudbury, Ont.

LUMBER, Hardwood (Beech, Birch or Maple)

Bathurst Lumber Co., Ltd., Bathurst Village, N.B.
Beck, The C., Mfg. Co., Ltd., Penetaguishene, Ont.
Bobcaygeon Lumber Co., The, Bobcaygeon, Ont.
Brennen, The M. & Sons, Mfg., Co., Ltd., Hamilton, Ont.
British Canadian Lumber Corporation, Ltd., Vancouver, B.C.
Brockville Lumber Co., Brockville, Ont.
Brompton Pulp & Paper Co., The, East Angus,
Bronson Lumber & Saw Mill Co., Ltd., Ottawa, Ont.
Calhoun Lumber Co., Calhoun, N.B.
Cameron & Co., Ottawa, Ont.
Canada Wood Specialty Co., Ltd., Orillia, Ont.
Carew, John, Lumber Co., Ltd., Lindsay, Ont.
Carkner, D., & Co., Kenmore, Ont.
Cargill Planing Mills Co., Cargill, Ont.
Carss, The S. E. Lumber Co., Ltd, Orillia, Ont.
Chappell Bros. & Co., Ltd., Sydney, N.S.
Chew Bros. Lumber Co., The, Midland, Ont.
Crockett, Thos., Riviere du Loup Station, Que.
Cummings, A. H., & San, Coaticook, Que.
Davison Lumber Co., The, Bridgewater, N.S.
Drader, Wm. W., Chatham, Ont.
Duncan, J. W., Ltd., Montreal, Que.
Durham Furniture Co., Ltd., Durham, Ont.
Eagle Lumber Co, Ltd., The, Montreal, Que.
Edwards, W. C., & Co., Ltd, Ottawa, Ont.
Esplin, G. & J., Montreal, Que.
Fassett Lumber Co, Ltd., Fassett, Que.
Fesserton Timber Co., Ltd., The, Fesserton, Ont.
Finlay, J. & Sons, Norwood, Ont.
Gall Lumber Co., Ltd., The, Toronto, Ont.
Georgian Bay Shook Mills, Ltd., Midland, Ont.
Gignac, J. H., Ltd., Quebec, Que
Gravel, A, Lumber Co., Ltd., Etchemin Bridge, Que.
Grier, G. A., & Sons, Ltd., Montreal, Que.
Hadley, The S. Lumber Co., Ltd., Chatham, Ont.
Hancock, T. H., Toronto, Ont.
Harrison, John, & Sons, Co., Ltd., Owen Sound,
Huntsville Syndicate, The, Huntsville, Que.
Johnston, Hunter & Crawford, Wiarton, Ont.
Kastner Lumber Co., Wiarton, Ont.
Keenan Bros., Ltd., Owen Sound, Ont.
Kerr, J. & J., Co., Ltd., Petrolia, Ont.
Knight Bros., Ltd., Owen Sound, Ont.
Lachute Shuttle Co., Ltd., Lachute Mills, Que.
Laidlaw, The R., Lumber Co., Ltd., Toronto, Ont.
Lake Superior Corporation, The, Sault Ste. Marie, Ont.
Laking, The, Wm. Lumber Co., Toronto, Ont.
Laurentian Lumber Co., Ltd., The, Montreal,
Mackay, W. M., St. John, N.B.
McLearn Company, Ltd., Liverpool, N.S.
MacLaren, The Jas. Co., Ltd., Buckingham, Que.
McAllister, Geo., Bloomingdale, Ont.
McKean, Geo., St. John, N.B.
McKillop, A. & Sons, Ltd., West Lorne, Ont.
Miller, Lewis, & Co., Ltd., Ingramport, N.B.
Moirs, Ltd., Halifax, N.S.
Murray, G. W., Co. Ltd., Winnipeg, Man.
Murray & Gregory, Ltd., St. John, N.B.
Muskoka Wood Mfg. Co., Ltd., The, Huntsville, Ont.
Newman, John P., Wiarton, Ont.
Nesbitt, E. T., Quebec, Que.
Ontario Wood Pump Co., Shakespeare, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Parker, J. B., Dixville, Que.
Patterson-Tilley Co., The, Hamilton, Ont.
Pearce Co., Ltd., The, Marmora, Ont.
Peterboro Lumber Co., Ltd., The, Peterboro, Ont.
Quance Brothers, Delhi, Ont.
Ransford, John, Clinton, Ont.
Randolph & Baker, Ltd., Randolph, N.B.
Rathbun Co., The, Deseronto, Ont.
Rhodes, Curry Co., Ltd., Amherst, N.B
Riordon Pulp & Paper Co, Ltd., Montreal, Que.
Rixon, Ainslie, Stodart Co., Ltd., Owen Sound, Ont.
Rosedale Saw Mill Co., Ltd., The, Toronto, Ont.
Samson, Joseph, Quebec, Que.
Sayre, F. E., & Co., Ltd., St. John, N.B.
Seaman, Kent Co., Ltd., Meaford, Ont.
Sharples, W. & J., Quebec, Que.
Shearere, The James Co, Ltd., Montreal, Que.
Smith, John B., & Sons, Ltd., Toronto, Ont.
Snowball, The J. B. Co., Ltd., Chatham, Ont.
Sutherland, Innes Co., Ltd., The, Chatham, N.B.
Thompson Lumber Co., Havelock, Ont.
Thompson, The W. R., Co., Teeswater, Ont.
Turner Lumber Pulpwood Co., The, Quebec, Que
Wallaceburg Cooperage Co., Ltd., Wallaceburg, Ont.
Watson, Alex., St. John, N.B.
White, Chas., T., & Son, Ltd., Sussex, N.B.
Williamson & Crombie, Kingsbury, Que.

LUMBER, Spruce.

Abel-Fortin, J. P., & Co., Montreal, Que.
Adams, Burns, Co., Ltd., Bathurst, N.B.
Adams River Lumber Co., Ltd., The, Chase, B.C.
Atkinson, H., Etchemin Bridge, Que.
Altantic Lumber Co., Ltd., Amherst, N.S.
Babbitt Lumber Co, Gibson, N.B.
Bathurst Lumber Co, Ltd., Bathurst Village, N.B.
Baker Lumber Co., Lindsay, Ont.
Baldwin-O'Brien & Co., St. George, N.B.
Barnet, A., Renfrew, Ont.
Beauce Pulp & Lumber Co., Quebec, Que.
Beck, The C., Mfg. Co., Ltd., Penetaguishene, Ont.
Bell Lumber Co, Ltd., Florenceville, N.B.
Belgo-Canadian Pulp & Paper Co., Ltd., Shawinigan Falls, Que.

Big River Lumber Co., Ltd., Prince Albert, Sask.
Benjamin, S. P. Co., Ltd., Wolfville, N.S.
Black, Jos L, & Sons, Ltd., Sackville, N.B.
Bobcaygeon Lumber Co., Bobcaygeon, Ont.
Booth, J. R., Ottawa, Ont.
Boyd, Mossom Co., Bobcaygeon, Ont.
Breakey, John, Estate of, Breakeyville, Que.
British Canadian Lumber Corporation, Ltd., Vancouver, B.C.
British Columbia Canning Co., Ltd.,Victoria, B.C.
Brockville Lumber Co., Brockville, Ont.
Brompton Pulp & Paper Co., The, East Angus, Que.
Bruce Fines Saw Mill Co., Ltd., Bruce Mines, Ont.
Brunette Saw Mill Co., Ltd., New Westminster, B.C.
Bronson Lumber & Saw Mill Co., Ltd., Ottawa, Ont.
Burchill & Sons, Nelson, B.C.
Burrard Lumber Co., The, Vancouver, B.C.
Burrill Lumber Có., Three Rivers, Que.
Calhoun Lumber Co., Calhoun, N.B.
Cameron Bros., West River Station, N.S.
Cameron & Co, Ottawa, Ont.
Campbell Lumber Co., Ltd., The, Weymouth, N.S.
Canadian Southern Lumber Co., Ltd., Victoria, B.C.
Canadian Western Lumber Co., Ltd., Fraser Mills, B.C.
Canadian Pacific Lumber Co, Ltd., Vancouver, B.C.
Carss, The S. E., Lumber Co., Ltd., Orillia, Ont.
Cascade Mills, Ltd., Vancouver, B.C.
Carew, John, Lumber Co., Ltd., Lindsay, Ont.
Cascapedia Mfg. & Trading Co., Chaleurs, Que.
Chaudiere Lumber Co., Chaudiere Junction, Que.
Chaleur Bay Mills, Restigouche, Que.
Charlemange & Lac Ouareau Lumber Co., Montreal, Que.
Chalifour, O., Quebec, Que.
Chew Brothers Lumber Co., The, Midland, Ont.
Church & Fee, Ltd., Montreal, Que.
Cole, S., Point Fortune, Que.
Colonial Lumber Co., Ltd., The, Pembroke, Ont.
Crockett, Thomas, Rieviere du Loup Station, Que.
Copping, Wm., Joliette, Que.
Continental Lumber Co., Ltd., River Charle, N.B.
Couture & Rheault, Disraeli, Que.
Craig, Thomas, Sherbrooke, Que.
Cummings, A. H., & San, Coaticook, Que.
Cutler Bay Lumber Co., Cutler, Ont.
Dalhousie Lumber Co., Ltd., The, Dalhousie, N.B.
Danville Lumber Co., The, Montreal, Que.
Davison Lumber Co., Ltd., The, Bridgewater, N.S.
Davidson, Jas., Ottawa, Ont.
Disraeli Box Co., Inc., Disraeli, Que.
Dryden Timber & Power Co, Ltd., Dryden, Ont.
Dumm, S. E., Lumber Co., Upper Kennetcook, NS.
Duncan, J. W., Ltd., Montreal, Que.
Dyment-Baker Lumber Co., London, Ont.
Eau Claire & Bow River Lumber Co., Calgary, Alta.
Eagle Lumber Co., Ltd., The, Montreal, Que.
Edmonton Lumber Co., Ltd., Edmonton, Alta.
Edwards, W. C., & Co., Ltd, Ottawa, Ont.
Elk Lumber Co., Ltd., The, Fernie, B.C.
Elliott, Jas. S., & Sons, Prescott, Ont
Empire Lumber Co., Ltd., Toronto, Ont.
Emberton Lumber Co., St. Victor de Tringe, Que.
Evans Co., Ltd., The, Sudbury, Ont.
Fassett Lumber Co., Ltd., Fassett, Que.
False Creek Lumber Co., Vancouver, B.C.
Fenderson, John, & Co., Inc., Sayabec, Que..
Ferguson & McFadden, Renfrew, Ont.
Fernbridge Lumber Co., Fernie, B.C.
Fernie Lumber Co., Fernie, B.C.
Flemming & Gibson, Ltd., Hartland, N.B.
Fletcher Pulp & Lumber Co., Sherbrooke, Que.
Flewelling Mfg. Co., Hampton, N.B.
Fraser, D. R., & Co., Ltd., Edmonton, Alta.
Frasers, Ltd., Fredericton, N.B.
Frechette, Louis I., St. Ferdinand, Que.
Fredett, C, St John, Que.
Galbraith, David, Sherbrooke, Que.
Gignac, J. H., Ltd., Quebec, Que.
Gignac, Napoleon, Quebec, Que.
Gillies Bros., Ltd., Braeside, Ont.
Globe Lumber Co, Calgary, Alta.
Gloucester Lumber & Trading Co., Bathurst, N.B.
Gordon, Geo., & Co., Ltd., Cache Bay, Ont.
Grand Bois, M. A., St. Casimir, Que.
Gravel, The A, Lumber Co., Ltd., Etchemin Bridge, Que ,
Graves, Bigwood & Co., Toronto, Ont.
Gres Falls Lumber Co., Three Rivers, Que.
Grier, G. A., Sons, Ltd., Montreal, Que.
Hanbury Mfg Co., Ltd., Brandon, Man
Hancock, T H., Toronto, Ont.
Hantsport Fruit Basket Co., Hantsport, N.S.
Harris Tie & Lumber Co., Ottawa, Ont.
Harrison, John, & Sons, Co., Ltd., Owen Sound, Ont.
Hastings Shingle Mfg. Co., Ltd., The, Vancouver, B.C.
Hawkesbury Lumber Co., Ltd., The, Hawkesbury, Ont.
Hesson, W. J., & Co., Sault Ste Marie, Ont
Hickman, C. S., Dorchester, N.B.
Hickman, J. & Co., Ltd., Dorchester, N.B.
Hope Lumber Co., Blind River, Ont.
Huntsville Lumber Co., Ltd., Huntsville, Ont.
Huntsville Syndicate, Huntsville, Qnt.
Hutchinson Lumber Co., Douglastown, N.B.
Ideal Sash & Door Lumber Co., Montreal, Que.
Jacques Cartier, La Compagnie a Bois, Pont Rouge, Que.
Jewell Lumber Co., Ltd., Hanbury, B.C.
Johnston & Carswell, Ltd., Vernon, B.C.
Joly de Lotbiniere, A., Leclercville, Que.
Kerr, J. & J., Co., Ltd., Petrolia, Ont.
King Lumber Mills Co, Ltd., The, Cranbrooke,
Knight Bros. Co., Ltd., The, Burk's Falls, Ont.
Kirk, D. G., Woodworking & Contracting Co., Antigonish, N.S.
Laidlaw, The R., Lumber Co., Ltd., Toronto.
Lake Megantic Pulp Co., Lake Megantic, Que.
Lake Superior Corporation, Sault Ste. Marie, Ont.
Lake Superior Paper Co., Ltd., Sault Ste. Marie, Ont.
Laking, The, Wm. Lumber Co., Toronto, Ont.
Lantz Bros. & Co., Millford Stn., N.S.
Lambert, A. G., & Co., Nelson, B.C.
Laurentian Lumber Co., Ltd., The, Montreal,
Laurentide Co., Ltd., Montreal, Que.
Leigh, Jas & Sons, Victoria, B.C.
Lemon, Gonnason & Co., Victoria, B. C.
Little River Redwood Co., Ottawa, Ont.
Loggie, W. S., Co., Ltd., Chatham, N. B.
Logue & Cox, Maniwaki, Que
Lovell, H & Sons, Coaticook, Que.
Lotbiniere Lumber Co., Lyster Mills, Que.
Lumsden, John, Ottawa, Ont.
Lussier, Albert, Varennes, Que.
Lynch, Timothy, & Co., Nelson, N.B.
Mackay, Wm., St. John, N.B.
Mackie, A. T., & Co., Pembroke, Ont.
MacLaren, The Jas. Co., Ltd., Buckingham, Que.
Maritime Lumber Co., Ltd., Halifax, N.S.
Massue, P H., & Co., Rawdon, Que.
McArthur, J. D. Co., Ltd., Winnipeg, Man.
McCamus & McKelvie, New Liskeard, Ont.
McClearn Co., Ltd., The, Liverpool, N.S.
McDonald, J. D., Blind River, Ont.
McFadden & Mallory, Webwood, Ont.
McFarland, R., & Co., Ltd., Barrie, Ont.
McGibbon, F., & Son, Penetaguishene, Ont.
McGibbon, P. & A., Lachute Mills, Que.
McKean, Geo., St. John, N.B.
McLachlin Bros., Ltd., Arnprior, Ont.
McLaren, Peter, Perth, Ont.
McLaurin, John R., Vankleek Hill, Ont.
McMillan & Co., Ltd., The, Durham Centre, Ont.
McMullen, T. G., Truro, N.S.
Metis Lumber Co., The, Price, Que.
Mickle, Dyment Co., Ltd., The, Barrie, Ont.
Midland Lumber Co., Ltd., Midland, Ont.
Miller, W. H., Campbellton, N.B.
Miller, Lewis, & Co, Ltd., Ingramport, N.S.
Miller, Moore Lumber Co., St. John, N.B.
Mills, A. D., & Sons, Ltd., Annapolis Royal, N.S.
Miramichi Lumber Co., Ltd., Chatham, N.B.
Moirs, Ltd., Halifax, N.S.
Molson, John W., Ste. Hippolyte, Que.

Montmorency Lumber Co., Montmorency Falls, Que.
Moore, John E., St. John, N.B.
Moore, Whittington Lumber Co., Ltd., Victoria, B.C.
Montgomery & Sons Co., Ltd., New Richmond, Ont.
Morin Freres, Montreal, Que.
Mowat, R. A., Campbellton, N.B.
Murchie's, Jas., Sons Co., Emundston, N.B.
Murray & Gregory, Ltd., St. John, N.B.
Naashwaak Lumber Co., Ltd., Marysville, N.B.
Nesbit, E. T., Quebec, Que.
Nesbitt, R., Uxbridge, One.
Nova Scotia Lumber Co, Ltd., Amherst, N.S.
Ontario Slocan Lumber Co., Ltd., Orillia, Ont.
Ontario Wood Pump Co., Shakespeare, Ont.
Otis Staples Lumber Co., Ltd., Wycliffe, B.C.
Oyamel Co., Quebec, Que.
Palliser Lumber Co., Palliser, B.C.
Paquet & Godbout, St. Hyacinthe, Que.
Parker, J B., Dixville, Que.
Parrsboro Lumber Co., Parrsboro, N.S.
Partington, The, Edward Pulp & Paper Co., Ltd. St. John, N.B.
Pauze, U. & Fils, Co., Montreal Que.
Pembroke Lumber Co., The, Pembroke, Ont.
Pennington, D. H., Lyster, Que.
Peter, Wm., Parry Sound, Ont.
Peterboro Lumber Co., Ltd., The, Peterboro, Ont.
Pickels, The F. W. Co., Annapolis Royal, Que.
Pope, F. M., Sons, Bury, Que.
Potter, Wm. & Son, Tottenham, Ont.
Powell Lumber & Door Co., Ltd., Toronto, Ont.
Prescott Lumber Co., Ltd., New Mills, N.B.
Price Bros. & Co., Ltd., Quebec, Que.
Prince Albert Lumber Co., Ltd., Prince Albert, Sask.
Pugsley, J. Newton, Parrsboro, N.S.
Quincy Arams Lumber Co., Ltd., Toronto. Ont.
Quinn, B. & Co., Windsor Mills, Que.
Randolph & Baker, Randolph, N.B.
Rathbun Co., The, Deseronto, Ont.
Rat Portgae Lumber Co., Ltd., Kenora, Ont.
Renous Bridge Lumber Co., Indiantown, N.B.
Rhodes, Curry Co., Ltd., Amherst, N.S.
Richardson, Jas. Co., Ltd., Montreal, Que.
Rideau Lumber Co., Ltd., The, Ottawa, Ont.
Riordon Pulp & Paper Co,, Ltd., Montreal, Que.
Ritchie, D. & J. Co., Newcastle, N.B
Ritchie, R. & T., Ltd., Aylmer, Que.
River Ouelle, Pulp & Paper Co, St. Pacombe, Que.
Robertson & Hackett, Vancouver, B.C.
Robinson, Jas., Millerton, N.B.
Rood & McGregor, New Glasgow, N.S.
Rousseau, J. A., Ste. Anne de la Perade, Que.
Rutherford, The Wm., & Sons Co., Ltd., Montreal, Que.
Sable Lumber Co., Wilkin's Siding, N.S.
Samson, Joseph, Quebec, Que.
Sayre, F. E. & Co., St. John, N.B.
Sharples, W. & J., Quebec, Que.
Shepard & Morse Lumber Co., The, Ottawa, Ont.
Sherbrooke Lumber Co., Sherbrooke, Qne.
Shortreed, G., Hillsdale, Ont.
Shives Lumber Co., Ltd., Campbellton, N.B.
Sinclair Lumber Co., Newcastle, N.B.
Small & Bucklin Lumber Co., Ltd., New Westminster, B.C.
Smith, John B., & Sons, Ltd., Toronto, Ont.
Snowball, The J. B. Co., Ltd., Chatham, Ont.
South Shore Lumber Co., The, Vancouver, B.C.
Sprague Lumber Co., Ltd., Winnipeg, Man.
Standard Mills, Ltd, Montreal, Que.
Stehelin, Emile, Weymouth, N.S.
Stetson, Cutler Co., St. John, N.B.
Stone, Grant Lumber Co., Cutler, Ont.
Strong Lumber Co., Ltd., Orillia, Ont.
Sturgeon Lake Lumber Co., Prince Albert, Sask.
Swanson Bay Forest Wood Pulp Lumber Mills, Ltd., Swanson Bay, B.C.
Swedish Canadian Lumber Co., Ltd., Nordin, N.B.
St. Gabriel Lumber Co., Ltd., St. Gabriel de Brandon, Que.
St. Simeon Lumber Co, Ltd., St. Hyacinthe, Que.
Sydney Lumber Co., Dalhousie, N.B.
Tennant, G. W., Bracebridge, Ont.
Terminal Lumber & Shingle Co., Ltd., Vancouver, B. C.
Thompson Lumber Co., Havelock, Ont.
Timberland Lumber Co., New Westminster, B.C.
Tourville Lumber Mills Co., Montreal, Que.
Trenholme, T. A., Montreal West, Que.
Trois Pistoles Pulp & Lumber Co., Trois Pistoles, Que.
Turner Lumber Co., Ltd., The, Toronto, Ont.
Turner Lumber Pulpwood Co., The, Quebec, Que.
Vancouver Lumber Co., Ltd., Vancouver, B.C.
Vigars-Shear Lumber Co., Ltd., Port Arthur, Ont.
Villeneuve, L. & Cie, Ltd., Montreal, Que.
Warner & Co., St. John, N.E
Watson, Alex., St. John, N.B.
Welsh, Michael, Bristol, N.B.
White, Charles T. & Sons, Ltd., Sussex, N.B.
Wolverine Cedar & Lumber Co., Ltd., Webbwood, Ont.
Yahk Lumber Co, Ltd., The, Yahk, B.C.
York & Sunbury Milling Co., Ltd., Gibson, N.B. B.C.

LUNKA.—(See LANKA.)

LUPINE.—The yellow and blue lupine are grown as food for cattle. The seeds are also eaten by human beings, and are cultivated in Mediterranean countries for that purpose. They are also made into a substitute for coffee.

LYE, Concentrated.

Canadian Alkali Co., Ltd., The, Windsor, Ont.
Darling & Brady, Montreal, Que.
Gillett, E. W., Co., Ltd., Toronto, Ont.
Labrecque & Pellerin, Montreal, Que.
Richards Pure Soap Co., Ltd., The, Woodstock, Ont
Royal Crown Soaps, Ltd., Vancouver, B.C.
Wells, W. W., Toronto, Ont.

LYCOPODIUM.—The spores of this cryptogam, known as stag's-horn moss, are used for coating pills, in fireworks, &c. The former acts as an emetic and the latter as a cathartic. A dye is obtained from them.

LYNX.—Several species of lynx are hunted for their skins. The most esteemed skins are those of the North American lynx, which are exported from Canada.

M

MACARONI.—A paste of hard wheat-flour, frequently coloured with turmeric or saffron, and pressed through holes into various forms. When in long tubes it is called macaroni; thin pipes are known as vermicelli, and small pieces of various forms as Italian paste. Macaroni is made chiefly in Italy, and in France. When the meal has not sufficient glutinous matter white of egg is mixed with it.

MACARONI AND VERMICELLI.

Catelli, The C. H., Co., Ltd., Montreal, Que.
Dominion Biscuit Co., Ltd., Vancouver, B.C.
Marinaro, Macaroni Co., Lethbridge, Alta.
Pastene, P. & Co., Montreal, Que.

MACE.—The fleshy covering of the nutmeg. It is dried and exported from Penang, Singapore, and other places in the East Indies, and is used as a spice. (See **NUTMEG.**)

MACHINERY.—Machinery includes locomotives, agricultural and other engines, other agricultural machines, machinery for textile industries, mining, &c.

MACHINERY, Abattoir.

Linde Canadian Refrigeration Co., Ltd., Montreal, Que.
Perrin, W. R., & Co., Ltd., Toronto, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Whitfield, The John, Company, Toronto, Ont.

MACHINERY, Ammonia.

Canadian Ammonia Co., Ltd., Toronto, Ont.

MACHINERY, Bakers' and Confectioners.

Bawden Machine Co., Ltd., Toronto, Ont.
Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Brantford Oven & Rack Co., Ltd., Brantford, Ont.
Gardner, Robert, & Son, Ltd., Montreal, Que.
Greey, Wm. & J. G., Toronto, Ont.
Pendrith Machinery Co., Ltd., Toronto, Ont.
Turner, John, & Son, Toronto, Ont.
Wilson, C., & Son, Toronto, Ont.

MACHINERY, Bean-picking, Cleaning and Threshing.

Watt, R., Machine Works Co., Ridgetown, Ont.

MACHINERY, Bolt and Nut, Pipe Cutting and Threading.

Armstrong, Mervin, Toronto, Ont.
Bertram, John & Sons, Ltd., Dundas, Ont.
Borden Canadian Co., Toronto, Ont.
Canadian Tap & Die Co., Ltd., The, Galt, Ont.
Jardine, A. B., & Co., Hespeler, Ont.
Hall, John H., & Sons, Brantford, Ont.
McDougall, R., Co., Ltd. Galt, Ont.

MACHINERY, Bookbinders'.

Gardner, Robert, & Son, Ltd., Montreal, Que.
Millar & Richard, Toronto, Ont.
Modern Machine & Electrical Works, Toronto.
Morrison, The J. L. Company, Toronto, Ont.
Toronto Type Foundry Co., Ltd., Toronto, Ont.
Westman & Baker, Toronto, Ont.

MACHINERY, Bottling.

Aluminum & Crown Stopper Co., Toronto, Ont.
McLaughlin, J. J., Ltd., Toronto, Ont.
Morrison, The James, Brass Mfg. Co., Ltd., Toronto, Ont.
Richardson, C., & Co., St. Mary's, Ont.
Willson & Warden, Toronto, Ont.

MACHINERY, Brick, Tile and Clay.

Baird, H. C., Son & Co., Ltd., Parkhill, Ont.
Bechtels, Ltd., Waterloo, Ont.
Berg Machinery Mfg. Co., Ltd., The, Toronto.
Hepburn, John T., Toronto, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Rothwell & Hall, Hamilton, Ont.

MACHINERY, Butter and Cheese Factory.

Beach, The M. F. Co., Ltd., Winchester, Ont.
Bertrand, La Cie, F. X., Mfr., Ltd., St. Hyacinthe, Que.
Gosselin, J. A., La Compagnie, Drummondville, Que.
Plessisville Foundry Co., Ltd., The, Plessisville, Ont.
Richardson, C., & Co., St. Mary's, Ont.
McOuat, T., & Son, Lachute Mills, Que.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.

MACHINERY, Canning.

Brown-Boggs Co., Ltd., Hamilton, Ont.
Heaps Engineering Co., Ltd., New Westminster, B.C.
Jeffrey Mfg. Co., Montreal, Que.
Jeffrey & Burpee, Ltd., Vancouver, B.C.
Perrin, W. R., & Co., Ltd., Toronto, Ont.
Wilson, J. C., & Co., Glenora, Ont.

MACHINERY, Cement-Making.

Berg Machinery Mfg. Co., Ltd., The, Toronto.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.
Owen Sound Iron Works Co., Ltd., Owen Sound, Ont.
Walker Foundry Co., Belleville, Ont.
Wettlaufer Brothers, Toronto, Ont.

MACHINERY, Coal-handling.

Beatty, M., & Sons, Ltd., Welland, Ont.
Brown Machine Co., New Glasgow, N.S.
Cumming, J. W. & Son, New Glasgow, N.S.
Jeffrey Mfg. Co., Montreal, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Waterous Engine Works Co., Ltd., Brantford, Ont.
Williams & Wilson, Ltd., Montreal, Que.
Greey, Wm., & J. G., Toronto, Ont.

MACHINERY, Felt.

Elmira Machinery & Transmission Co., Ltd., Elmira, Ont.

MACHINERY, Flax Mill.

Bell, The Robert, Engine & Thresher Co., Ltd., Seaforth, Ont.

MACHINERY, Flour and Oatmeal Mill.

Abrams, John, & Sons, Ltd., Moncton, N.B.
Austin Bros., Ltd., Halifax, N.S.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Fairbanks-Morse Co., Ltd., Montreal.
Goldie & McCulloch Co., Ltd., The, Galt, Ont.
Greey, Wm. & J. G., Toronto, Ont.
Stratford Mill Building Co., Ltd., Stratford, Ont.
Strong-Scott Mfg. Co., Ltd., Winnipeg, Man.
Victoriaville Foundry Co., Victoriaville, Que.

MACHINERY, Grinding and Polishing.

Canadian Hart Wheels, Ltd., Hamilton, Ont.
Jackson, Cochrane & Co., Berlin, Ont.
Ford-Smith Machine Co., Hamilton, Ont.
Norton Company, The, Chippewa, Ont.
Prescott Emery Wheel Co., Ltd., Prescott, Ont.
Williams, A. R., Machinery Co., Ltd., Toronto.

MACHINERY, Hydraulic.

Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Inglis, The John Co., Ltd., Toronto, Ont.

MACHINERY, Ice Making.

Canadian Gasket Co., Bridgeburg, Ont.
Kent Co., Ltd., The, Montreal, Que.
Linde Canadian Refrigeration Co., Ltd., Montreal, Que.
McLaughlin, J. J., Ltd., Toronto, Ont.

MACHINERY, Iron-working.

Bertram, John, & Sons, Ltd., Dundas, Ont.
Gardner, Robert, & Son, Ltd., Montreal, Que.
Hamilton Tool Co., Ltd., The, Hamilton, Ont.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.
McDougall, R., Co., Ltd., Galt, Ont.
Stevens Co. of Galt, Ltd., The, Galt, Ont.
Williams & Wilson, Ltd., Montreal, Que.
Williams, A. R., Machinery Co., Ltd., Toronto.

MACHINERY, Knitting Mill.

Creelman Brothers, Georgetown, Ont.
Harley-Kay Knitting Machine Co., Ltd., Georgetown, Ont.

MACHINERY, Laundry.

American Laundry Machinery Co., Ltd., Toronto, Ont.

Constantin & O'Brien, Montreal, Que.
Wieffer Brothers, Montreal, Que.
Meyer Brothers, Toronto, Ont.
Oil Motor & Mfg. Co., Ltd., St. John, N.B.
Toronto Laundry Machine Co., Ltd., Toronto.
Turner, John, & Son, Toronto, Ont.

MACHINERY, Mining.

Asbestos Foundry Co., Inc., Thetford Mines, Que.
Austin Bros., Ltd., Halifax, N.S.
Beatty, M., & Sons, Ltd., Welland, Ont.
Berg Machinery Mfg. Co., Ltd., The, Toronto.
Burrell Rock Drilling Co., Ltd., The, Belleville, Ont.
Brown Machine Co., New Glasgow, N.S.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Ingersoll Rand Co., Ltd., Montreal.
Cumming, J. W., & Son, Ltd.,New Glasgow, N.S.
Hamilton, Wm. Co., Ltd., Peterborough, Ont.
Inglis, The John Co., Ltd., Toronto, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Harsh & Henthorn, Ltd., Belleville, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Moir, W. & A., Halifax, N.S.
Napanee Iron Works, Napanee, Ont.
Nelson Iron Works, Ltd., The, Nelson, B.C.
Oxford Foundry & Machine Co., Ltd., Oxford,
Sherbrooke Iron Works, Ltd., Sherbrooke, Que.
N.S.
Sydney Foundry & Machine Works, Ltd., Sydney, N.S.
Vancouver Engineering Works, Ltd., Vancouver, B.C.
Wabi Iron Works, Ltd., New Liskeard, Ont.
Waterous Engine Works Co., Ltd., Brantford,
Waterous Engine Works Co., Ltd., Brantford, Ont.
Windsor Foundry & Machine Co., Ltd., Windsor, N.S.

MACHINERY, Nail Making.

Humber Machine Co., Toronto, Ont.
Maritime Nail Co., Ltd., St. John, N.B.

MACHINERY, Paint Grinding.

Greey, Wm., & J. G., Toronto, Ont.

MACHINERY, Paper Box.

Morrison, The J. L., Co., Toronto, Ont.
Toronto Type Foundry Co., Ltd., Toronto,

MACHINERY, Paper Mill.

Canadian Boving Co., Ltd., Toronto, Ont.
Hamilton, Wm. Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Miramichi Foundry & Machine Works, Chatham, N.B.
Morrison, The J. L., Co., Torontó, Ont.
Sherbrooke Machinery Co., Ltd., Sherbrooke, Que.

MACHINERY, Potato.

Aspinwall Mfg. Co., Guelph, Ont.
Canadian Potato Machinery Co., Ltd., Galt, Ont.
Moody, The Matthew, & Sons, Co., Terrebonne, Que.
Spramotor Company, London, Ont.

MACHINERY, Printing Ink.

Greey, Wm. & J. G., Toronto, Ont.

MACHINERY, Pulpwood and Pulp.

Candian Barker Co., Ltd., Sault Ste. Marie, Ont.
Canadian Boomer & Boschert Press Co., Ltd., Montreal, Que.
Canadian Boving Co., Ltd., Toronto, Ont.
Canadian Pulp Mill Machinery Co., Ltd., Montreal, Que.
Hamilton, Wm. Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Lloyd Mfg. Company, Kentville, N.S.
McLennan Foundry & Machine Works, Ltd., Campbellton, N.B.
Savoie Guay, La Compagnie, Plessisville Station, Que.
Sherbrooke Machinery Co., Ltd., Sherbrooke, Que.
Victoria Foundry Co., Ottawa, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

MACHINERY, Refrigerating and Cold Storage.

Kent Co., Ltd., The, Montreal Que.
Laurie, E. Co., Montreal.
Linde Canadian Refrigeration Co., Ltd., Montreal. Que.
Oil Motor & Mfg. Co., Ltd., St. John, N.B.
Wolf, Sayer & Heller, Montreal, Que.

MACHINERY, Roadmaking.

American Road Machinery Co. of Canada, Ltd., Goderich, Ont.
Bell, The Robt., Engine & Thresher Co., Ltd., Seaforth, Ont.
Climax Good Roads Machinery Co., Ltd., Hamilton, Ont.
Gilson Mfg. Co., Ltd., Guelph, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Plessisville Foundry Co., Ltd., The, Plessisville, Ont.
Sawyer-Massey Co., Ltd., Hamilton, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

MACHINERY, Saw, Shingle and Planing Mill.

Abram's, John, Sons, Ltd., Moncton, N.B.
Bell, The Robt., Engine & Thresher Co., Ltd., Seaforth, Ont.
Berlin Machine Works, Ltd., Hamilton, Ont.
Beacueville, La Fonderie de, Beauceville, East Que.
Bruce Agricultural Works, The, Teeswater, Ont.
Bertrand, La Cie., F. X., Mfr., Ltd., St. Hyacinthe, Que.
Canadian Machinery Corporation, Ltd., Galt, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Chalifoux, O., & Fils, St. Hyacinthe, Que.
Desjardins, La Cie, St. Andre, Kamouraska County, Que.
Drolet, F. X., Quebec, Que.
Fleck, Alexander, Ltd., Ottawa, Ont.
Francis, H. K., Hantsport, N.S.
Gardner, Robt., & Son, Ltd., Montreal, Que.
General Car & Machinery Works, Montmagny, Que.
Gosselin, J. A., La Compagnie, Drummondville, Que.
Green, The G., Water Co., Ltd., Peterborough, Ont.
Hamilton, Wm. Co., Ltd., Peterborough, Ont.
Heaps Engineering Co., Ltd., New Westminster, B.C.
Inglis, The John Co., Ltd., Toronto, Ont.
International Engineering Works, Ltd., Montreal, Que.
Jackson, Cochrane & Co., Berlin, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Laurie, E. Co., Montreal.
Letson & Burpee, Ltd., Vancouver, B.C.
Lloyd Mfg. Co., Kentville, N.S.
Long, The E., Mfg. Co., Ltd., Orillia, Ont.
Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
Maritime Foundry & Machine Works, Ltd., Chatham, N.B.
McCrae, John, Lindsay, Ont.
McLennan Foundry & Machine Works, Ltd., Campbellton, N.B.
Midland Engine Works Co., Midland, Ont.
Miramichi Foundry & Machine Works, Chatham, N.B.
Mowry & Sons, Gravenhurst, Ont.
Muskoka Foundry Co., Bracebridge, Ont.
Nelson Iron Works, Ltd., Nelson, B.C.
New Glasgow Machine Co., New Glasgow, N.S.
Owen Sound Iron Works Co., Ltd., Owen Sound, Ont.
Oxford Foundry & Machine Co., Ltd., Oxford, N.S.
Park Brothers, Chatham, Ont.
Payette, P. Co., Penetanguishene, Ont.
Petrie, H. W., Ltd., Toronto, Ont.
Plant, W. P., Hastings, Ont.

Plessisville Foundry Co., Ltd., The, Plessisville, Ont.
Ross & Howard Iron Works Co. Ltd., Vancouver, B.C.
Savoie Guay, La Compagnie, Plessisville Station, Que.
Sherbrooke Iron Works, Ltd., Sherbrooke, Que.
Starr Mfg. Co., Ltd., Dartmouth, N.S.
Stewart, Bruce, & Co., Ltd., Charlottetown, P.E.I.
Victoria Foundry Co., Ottawa, Ont.
Victoriaville Foundry Co., Victoriaville, Que.
Wabi Iron Works, Ltd., New Liskeard, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.
White, The George, & Sons, Co., Ltd., London, Ont.
Williams, A. R., Machinery Co., Ltd., Toronto.
Williams & Wilson, Ltd., Montreal, Que.

MACHINERY, Sheet Metal Working.

Brown-Boggs Co., Ltd., Hamilton, Ont.
Rothwell & Hall, Hamilton, Ont.

MACHINERY, Shoe.

Constantin & O'Brien, Montreal, Que.
Kieffer Brothers, Montreal, Que.
United Shoe Machinery Co. of Canada, Montreal, Que.

MACHINERY, Smelting.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Nelson Iron Works, Ltd., Nelson, B.C.

MACHINERY, Soda and Aerated Water.

Wilson & Cousins, Toronto, Ont.

MACHINERY, Spice Mill.

Greey, Wm. & J. G., Toronto, Ont.
Rothwell & Hall, Hamilton, Ont.

MACHINERY, Tannery.

Braniff, Henry, Berlin, Ont.
Drolet, F. X., Quebec, Que.
Martin Pump & Machine Co., Toronto, Ont.
Muskoka Foundry Co., Bracebridge, Ont.
Plant, W. P., Hastings, Ont.
Woon, Robt., & Co., Oshawa, Ont.

MACHINERY, Textile.

Bredannaz, Louis, & Sons, Toronto, Ont.
Cantin et Fils, La Compagnie, Warwick, Que.
Karch, H. W., Hespeler, Ont.
Victoriaville Foundry Co., Victoriaville, Que.

MACHINERY, Tinware, Tinsmiths' and Can Making.

Brown-Boggs Co., Ltd., Hamilton, Ont.
Heaps Engineering Co., Ltd., New Westminster, B.C.
Letson & Burpee, Ltd., Vancouver, B.C.

MACHINERY, Welding, Electric.

Agnew Electric Welder Co., Ltd., Walkerville, Ont.
Prest-O-Lite Company, The, Toronto, Ont.
Toledo Electric Welder Co., Brantford, Ont.

MACHINERY, Well-Drilling.

Brandon Machine & Implement Works, Brandon, Man.
Chapman Engine & Mfg. Co., Ltd., Dundas, Ont.
Dick, William, Bolton, Ont.
Rolston, James, Dunnville, Ont.
Kerr, J. & J., Co., Ltd., Petrolia, Ont.
Listowel Drilling Machine Co., Listowel, Ont.
Oil Well Supply Co., Ltd., Petrolia, Ont.
Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.

MACHINERY, Woodworking.

Berlin Machine Works, Ltd., Hamilton, Ont.
Bertrand, La Cie., F. X., Mfr., Ltd., St. Hyacinthe, Que.
Bournival & Co., Montreal, Que.
Canadian Linderman Co., Ltd., Woodstock, Ont.
Cowan & Co., of Galt, Ltd., Galt, Ont .
Elliott, W. A., Toronto, Ont.
Gardner, Robt., & Son, Ltd., Montreal, Que.
Hall Mfg. Co., Ltd., Summerside, P.E.I.
Jackson, Cochrane & Co., Berlin, Ont.
Maritime Foundry & Machine Works, Ltd., Chatham, N.B.
Park Brothers, Chatham, Ont.
Petrie, H. W., Ltd., Toronto, Ont.
Plessisville, Foundry Co., Ltd., The, Plessisville, Ont.
Preston Woodworking Machinery Co., Ltd., Preston, Ont.
Savoie Guay, La Compagnie, Plessisville, Ont.
Sleeper & Arkhurst, Ltd., Coaticook, Que.
Waterous Engine Works Co., Ltd., Brantford, Ont.
Williams, A. R. Machinery Co., Ltd., Toronto.
Williams & Wilson, Ltd., Montreal, Que.

MACHINES, Adding and Calculating.

Felt and Farrant Mfg. Co., Montreal, Que.

MACHINES, Automatic Cheese Box Nailing.

Peterborough Machine & Lubricator Co., Ltd., Peterborough, Ont.

MACHINES, Calculating.

Burrows Adding Machine Co., Montreal.

MACHINES, Cheese and Meat Cutting.

Computing Scale Co. of Canada, Ltd., Toronto.
Lemire, La Compagnie, St. Germain de Grantham, Que.

MACHINES, Cloth Cutting, Electric.

Armstrong Brothers, Toronto, Ont.

MACHINES, Clover Threshing.

Sawyer-Massey Co., Ltd., Hamilton, Ont.
Woon, Robt., & Co., Oshawa, Ont.

MACHINES, Concrete Block and Concrete Brick.

Ideal Concrete Machinery Co., Ltd., London, Ont.
London Concrete Machinery Co., Ltd., Montreal.
Mussen's, Ltd., Montreal, Que.
Renown Engine & Machine Co., Ltd., London, Ont.
Stewart, The James, Mfg. Co., Ltd., Woodstock, Ont.
Woodstock Wind Motor Co., Ltd., Woodstock, Ont.

MACHINES, Dyeing.

Bredannaz, Louis, & Sons, Toronto, Ont.
Karch, H. W., Hespeler, Ont.

MACHINES, Egg Beating.

Fletcher Mfg. Co., Ltd., Toronto, Ont .

MACHINES, Envelope.

Anderson, R., & Co., Toronto, Ont.
Bawden Machine Co., Ltd., Toronto, Ont.

MACHINES, Milling.

Empire Cream Separator Co. (The), of Canada, Ltd., Montreal.

MACHINES, Paper Cutting, Punching and Ruling.

Fee, John, Montreal, Que.
Morrison, The J. L., Co., Toronto, Ont.
Westman & Baker, Toronto, Ont.

MACHINES, Pasteurizing.

DeLaval Dairy Supply Co., Ltd., Peterborough, Ont.
Richardson, C., & Co., St. Mary's, Ont.

MACHINES, Sewing.

Raymond Mfg. Co. of Guelph, Ltd., The, Guelph, Ont.
Singer Mfg. Co., St. John's, Que.
Williams Mfg. Co., Ltd., The, Montreal, Que.

MACHINES, Shingle.

Beauceville, La Fonderie de, Beauceville East, Que.
Maritime Foundry & Machine Works, Ltd., Chatham, N.B.
McLennan Foundry & Machine Works, Ltd., Campbellton, N.B.
Sleeper & Arkhurst, Coaticook, Que.
Smith Foundry Co., The, Fredericton, N.B.
Victoriaville Foundry Co., Victoriaville, Que.

MACHINES, Spraying and Painting. (See also Sprayers.)

Brantford Oven & Rack Co., Ltd., Brantford, Ont.
Gilson Mfg. Co., Ltd., Guelph, Ont.
McDougall, R., Co., Ltd., Galt, Ont.
Spramotor Company, London, Ont.

MACHINES, Tailors' Pressing.

Hot Point Electric Heating Co., Toronto.
National Electric Heating Co., Ltd., Toronto.
Smart, The James, Mfg. Co., Ltd., Brockville.

MACHINES, Threshing.

Bessette, La Cie, J. & S., Ltd., Iberville, Que.
Belanger, A., Montmagny, Que.
Canadian Rumely Co., Ltd., Toronto, Ont.
Cantin et Fils, La Cie., Warwick, Que.
Chalifoux, O., & Fils, St. Hyacinthe, Que.
Desjardins, La Cie., St. Andre, Kamouraska, County, Que.
Dore, J. B., & Fils, Montreal, Que.
Gilson Mfg. Co., Guelph, Ont.
Goodison, The John, Threshing Co., Ltd., Sarnia, Ont.
Hall Mfg. Co., Ltd., Summerside, P.E.I.
Macdonald Thresher Co., Ltd., The, Stratford, Ont.
Moody, The Matthew, & Sons, Co., Terrebonne, Que.
National Mfg. Co., Ltd., Ottawa, Ont.
New Hamburg Mfg. Co., Ltd., New Hamburg, Ont.
Pioneer Tractor Co., Ltd., Calgary, Alta.
Sawyer-Massey Co., Ltd., Hamilton, Ont.
Smith Stacker & Feeder Co., Ltd., Hamilton, Ont.
Waterloo Mfg. Co., Ltd., The, Waterloo, Ont.
Watt, R., Machine Works Co., Ridgetown, Ont.
White, The George, & Sons, Co., Ltd., London, Ont.

MACHINES, Trenching.

Harris, J. W., Mfg. Co., Ltd., Montreal, Que.

MACHINES, Typesetting, and Repair Parts.

Canadian Linotype, Ltd., Montreal, Que.
Lanston Monotype Machine Co., Toronto.
Modern Machine & Electrical Works, Toronto.
Toronto Type Foundry Co., Ltd., Toronto, Ont.

MACHINES, Vegetable Peeling.

Burns, John, & Co., Montreal, Que.
Imperial Machine Co., Toronto, Ont.

MACHINES, Washing.

Beatty Bros., Ltd., Fergus, Ont.
Briggs, E. H. Co., Ltd., Winnipeg, Man.
Connor, J. H., & Sons, Ltd., Ottawa, Ont.
Cummer-Dowswell, Ltd., Hamilton, Ont.
Lee Mfg. Co., Ltd., Pembroke, Ont.
London Foundry Co., Ltd., The, London, Ont.
Markwell Mfg. Co., Ltd., Winnipeg, Man.
One Minute Mfg. Co., Ltd., Toronto, Ont.
Schultz Bros. Co., Ltd., The, Brantford, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

MACHINES, Wire Weaving.

Turner, John, & Son, Toronto, Ont.

MACKEREL.—A fish of the family Scomberidæ, which includes the Tunny and Bonito. The common mackerel is found as far south as the Canary Islands, and an American species as far as Cape Cod on the Atlantic coast of America, and the fish occurs also in the Mediterranean and in the Southern Hemisphere. It is caught in great numbers in the seas of Northern Europe and America, and is much esteemed as food. It is eaten salted and smoked as well as fresh. **(See FISH.)**

MADAPOLAMS, a fine longcloth, named after a village in the Madras Presidency, India, but now exported from Europe to the East.

MADDER, the genus Rubia is found in the tropical and warmer temperate climates of the world. The roots are exported from the Levant, Greece, and Sicily. Next in quality is the madder of France and of Alsace and Holland. Other species grow in America, and are also used in dyeing reds and purples. The roots contain a principle called alizarine, which is now obtained artificially, and hence madder, though much more durable than the artificial product, is less in demand. An extract called garrancine is made of it.

MADEIRA, a much-esteemed brown wine, made from a mixture of black and white grapes, in the island of Maderia. There are two kinds of dry Maderia, known as Sercial and Boal.

MAGILP, or Megilp, a varnish of linseed oil and mastic, used by artists. Robertson's medium, which dries quicker, is now more frequently used.

MAGNESIA.—Magnesium occurs in dolomite, which is a mixture of carbonate of calcium and magnesium, and also in magnesite, a carbonate occurring in several European countries, Canada, the United States, and India. Magnesite is used for the manufacture of carbon dioxide gas, and when calcined for lining furnaces, and in paper-making. Wires of the pure metal are used to give light in signalling and in photography. In medicine the carbonate is used in the form of fluid magnesia, and also the sulphate, known as Epsom salts, which is present in the water of many mineral springs, and is made from magnesite. Citrate of magnesia is a mixture of bicarbonate of soda, a little Epsom salts, citric and tartaric acids.

MAGNESIA.

Keashy Mattison Co., Thetford Mines, Que.

MAGNESIA LIME, for Pulp Mills.

Randolph & Baker, Randolph, N.B.

MAGNESITE, Calcined.
Canadian Carbonate Co., Ltd., Montreal, Que.

MAGUEY, a name in Central America for the agave.

MAHALEB. **(See CHERRY.)**

MAHOGANY.—The wood of swietenia mahogy, a tree of the order sedrelaceæ, which grows in the West Indies and Central America. The hardest and most beautiful grained comes from the Islands and is called Spanish mhaogany. Jamaica yields the best quality but the supply is now small. Large quantities of a plainer grain are obtained from Central America and this timber is called the "hondures mahogany." Mahogany is the most expensive wood in Canada. With the two exceptions of Spanish cedar and ebony. Practically all of the imports, which amount to only about 3,000 feet annually, are used for decorative work, furniture, desks, pianos and interior finish of cars and vehicles. **(See WOOD.)**

MAHWA FLOWERS, the sweet flowers of the butter-tree, which are eaten in India, and from which a spirit is distilled. They have been imported into Europe.

MAIZE.—(See CORN.)

MAIZENA, American corn-flour made from corn.

MALACCA CANE. **(See RATTAN.)**

MALACHITE, a green carbonate of copper, an ore found in several countries, and in especially fine specimens in Siberia, the Urals and in Australia. It is made into vases, tables, &c., and is frequently inlaid in marble.

MALAGA, or Mountain. A rich wine exported from Malaga in Spain.

MALAGUETA PEPPER. **(See GRAINS OF PARADISE.)**

MALAMBO BARK.—The aromatic bark of a tree used in America for medicial purposes. **(See CROTON.)**

MALLETS, Raw Hide.

Constantine & O'Brien, Montreal, Que.
Hamilton Facing Mill Co., Ltd., Hamilton, Ont.
Kieffer Bros., Montreal, Que.

MALT, barley grains steeped in water and heated on a malting floor for about ten days, until the leaflets of the germ begin to appear, when they are dried in a kiln. In this condition the barley has attained its greatest capacity for producing sugar, and is used in the manufacture of beer and spirits. **(See also BEER and BARLEY.)**

MALT.

Bowie & Co.'s Brewery, Ltd., Brockville, Ont.
Calgary Brewing & Malting Co., Ltd., Calgary, Alta.
Canada Malting Co., Ltd., Toronto, Ont.
Carling Brewing & Malting Co. of London, Ltd., London, Ont.
Copland Brewing Co., Ltd., Toronto, Ont.
Cosgrove Brewery Co. of Toronto, Ltd., Toronto. Ont.
Dominion Brewery Co., Ltd., Toronto, Ont.
Eaton Bros. Brewing Co. of Owen Sound, Ltd., Owen Sound, Ont.
Edmonton Brewing & Malting Co., Ltd., Edmonton, Alta.
Finlayson, D. J & Son, Registered, Montreal,
Grant's Spring Brewery Co., Ltd., Hamilton,
Holliday Bros., Guelp, Ont.
Kuntz Brewery, Ltd., Waterloo, Ont.
Labatt, John, Ltd., London, Ont.
Lethbridge Brewing and Malting Co., Lethbridge, Alta.
McCarthy, J. & Sons Co., Ltd., Prescott, Ont.
Moose Jaw Brewing & Malting Co., Ltd., Moose Jaw, Sask.
National Breweries, Ltd., The, Montreal.
O'Keefe Brewery Co. of Toronto, Ltd., Toronto.
Oland & Son, Halifax, N.S.
Rice Malting Co., Winnipeg, Man.
Walker, Hiram & Sons, Ltd., Walkerville, Ont.
Walkerville Brewing Co., Ltd., The, Walkerville Ont.

MALTINE, a malt extract prepared for invalids.

MANDARIN ORANGES. **(See ORANGES.)**

MANDRELS, Taper.

Jardine, A. B. & Co., Hespeler, Ont.
Pratt & Whitney Co. of Canada, Ltd., Dundas, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

MANGANESE, a whitish grey metal, the oxides of which are largely employed in manufactures. The most important ore is the black oxide, known as pyrolusite. Less common are manganite, braunite, and other oxides. Very frequently it occurs in association with other metals—silver, zinc, and especially iron. Ores of manganese are extracted in many countries, but are mined in the largest quantities in Russia, India, and Brazil. The metal is largely used in the manufacture of steel, in colouring glass and dyeing textiles, and in the composition of bronzes. A very important use of it is in the production of chlorine. The manganates and permanganates of potash are valuable disinfectants. Rhodonite, a manganese silicate of a beautiful rose colour, is found in Russia and at Franklin Furnace, New Jersey, and is used as an ornamental stone.

MANGANESE.

Goldschmidt-Thermit Co., Toronto, Ont.

MANGLE CLOTH.

Ayers, Ltd., Lachute Mills, Que.
Lachute Knitting Co., Ltd., The, Lachute, Que.

MANGLES.

Cummer-Dowswell, Ltd., Hamilton.
Taylor-Forbes Co., Ltd., Guelph, Ont.
Turner, John & Son, Toronto.

MANGO, the delicious fruit of Mangifera Indica, of the order Anacardaceæ, now cultivated in the West Indies and Central America, and in tropical Africa, as well as in the East Indies. There are several varieties, some of which are less esteemed because the fruits are fibrous or taste of turpentine; a much esteemed variety is konwn as No. 11. The wood of the Mango is used in India, and a gum is obtained from the bark, and gallic acid from the seeds.

MANGOLD WURZEL. (See BEET-ROOT.)

MANGOSTEEN, an excellent fruit borne by a tree that grows in the Malay Peninsula and Archipelago. The pericarp contains a large quantity of tannin, and is a good medicine in cases of dysentery and diarrhœa.

MANGROVE.—The bark of several species of tree are used in tanning. The fruit of the common mangrove is edible, and the fermented juice is a pleasant light wine.

MANILA HEMP, the fibre from the leaf-stalks of a plantain which thrives best in the Philippines. It is made into ropes and matting. The production of manila is about 66,000 tons. **(See HEMP.)**

MANILAS.—Cigars and cheroots made in the Philippine Islands.

MANIOC, a shrubby plant of tropical America, cultivated also in other tropical countries. **(See CASSAVA.)**

MANNA, a saccharine exudation from the trunk of an ash cultivated in the south of Europe. It is exported chiefly from Sicily and Calabria. Manna is a gentle purgative. In Kurdistan, Persia, and Mesopotamia a manna is obtained from oaks, tamarisks, &c., and is eaten as a sweetmeat, and an exudation from a tree is a favourite sweetmeat with the children of Australia.

MANTELS, Marble.

Smith Marble & Construction Co., Ltd., Montreal.

MANTELS, Pressed Brick.

Milton Pressed Brick Co., The, Ltd., Milton, Ont.

MANTELS, Wood.

Blonde Lumber & Mfg. Co., Ltd., Chatham, Ont.
Bourassa, P. E., & Son, Montreal.
Burton & Baldwin Mfg. Co., Ltd., Hamilton.
Canada Glass Mantels & Tiles, Ltd., Toronto.
Christie Wood Working Co., Ltd., St. John, N.B.
Coast Mfg. Co., Vancouver. B.C.
Cushing Bros. Co., Ltd., Calgary, Alta.
Elmira Interior Woodwork Co., Ltd., The, Elmira, Ont.
Fox Bros. & Co., Ltd., Windsor, Ont.
Lea, Paul, Co., Ltd., Moncton, N.B.
Leigh, Jas. & Sons, Victoria, B.C.
Lemon, Gonnason & Co., Victoria, B.C.
Moore, W. A., Co., Ltd., Meaford, Ont.
Moore, Whittington Lumber Co., Ltd., Victoria, B. C.
Murray, G. W., Co., Ltd., Winnipeg, Man.
Paquet & Godbout, St. Hyacinthe, Que.
Reid, Robt., Montreal, Que.
Rhodes, Curry Co., Ltd., Amherst, N.S.
Robertson & Hackett, Vancouver, B.C.
Schultz Bros., Co., Ltd., The, Brantford, Ont.
Wilson Bros., Ltd., Collingwood, Ont.
Winnipeg Paint & Glass Co., Ltd., Winnipeg.

MANUAL TRAINING DESKS.

Globe Furniture Co., Ltd., The, Waterloo, Ont.
Richards-Wilcox Canadian Co., Ltd., London, Ont.

MANURE SPREADERS.

Bateman-Wilkinson Co., Ltd., Toronto.
Dain Mfg. Co., Ltd., Welland, Ont.
International Harvester Co., of Canada, Ltd., Hamilton.
Kemp, W. I., Co., Ltd., Stratford, Ont.
Massey-Harris Co., Ltd., Toronto.
Moody, The Matthew, & Sons Company, Terrebonne, Que.

MAPLE is the most important hardwood used in Canada's industries. There are two varieties, hard maple and soft maple. Maple wood is a hard, stiff, material, and its value depends chiefly upon these two qualities. It is difficult to season, and shrinks considerably, and checks badly. It is also quite perishable, but it does not warp or twist after being properly seasoned. The soft maple is slightly tougher, but softer and lighter than hard maple. Accidental forms with grain curled and contorted, known as "Curly Maple," or "Birds-eye Maple" are common, and are highly prized for decorative work. Maple seldom grows in pure stands like pine or spruce, and the quantity still standing would be difficult to estimate. The material is used largely for hardwood flooring, and wood distillation, and furniture. For these purpurposes, and for all others where strength and stiffness are not of paramount importance, birch could easily be substituted in many cases, and is being substituted more and more each year as the supply of maple decreases. The hard maple produces in early spring a sweet sap from which maple sugar is made. **(See WOOD and SUGAR.)**

MAPS.

Benallack Lithol & Printing Co., Montreal.
Borrie, H. J., Montreal.
Bulman Bros., Ltd., Winnipeg, Man.
Consolidated Litho & Mfg. Co., Ltd., Montreal.
Copeland-Chatterson Co., Ltd., Toronto.
Copp, Clark Co., Ltd., The, Toronto.
Globe Furniture Co., Ltd., The, Waterloo, Ont.
Hendry, The, Geo. M., Co., Ltd., Toronto.
Howell Lithographic Co., Ltd., Hamilton.
McAlpine Publishing Co., Ltd., Halifax, N.S.
Rolph & Clark, Ltd., Toronto, Ont.
Stone, Ltd., Toronto, Ont.
Stovel Co., Winnipeg, Man.

MARABOU FEATHERS, the under feathers of the tail of the adjutant, a stork-like bird which is a native of India and of Africa.

MARASCHINO, a liqueur made of a kind of a sour cherry, marasca, cultivated chiefly in Dalmatia. Zara in Dalmatia is a noted seat of the manufacture, but good maraschino is produced also in Trieste, Vienna, Pest, and Graz. **(See LIQUEURS.)**

MARBLE.—The term, strictly applied, denotes a crystallized carbonate of lime with a saccharoidal fracture, but is frequently extended to include all limestone rocks capable of being polished. Statuary marble is fine-grained, homogeneous, of a uniform colour, and not liable to splinter. The most noted is the white marble of Carrara and Massa in Italy. A kind not quite so excellent is quarried in Saint Beat in the Pyrenees. In these mountains, in the north of Italy, in the Alps, Jura and Vosges mountains coloured and veined marbles of various kinds are quarried. Many limestones are beautifully marked by the fossil shells they contain, and are used for decorative purposes.

MARBLE BUILDING MATERIAL.

Atkinson Marble & Granite Co., Simcoe, Ont.
British Canadian Marble Co., Ltd., Montreal.
Dominion Marble Co., Ltd., Montreal.
Hackney Tile & Supply Co., Ltd., Winnipeg.
Hooper's Marble & Granite Co., Ltd., Winnipeg.
Lautz Co., The, Toronto, Ont.
Marble & Tile Co. of Canada, Ltd., Winnipeg.
Mariotti Marble Co., Montreal.
Mississquoi-Lautz Corporation, Ltd., Phillipsburg, Que.
Norcross Bros. Co., Ltd., Iberville, Que.
North Lanark Granite & Marble Quarries, Ltd., St. Catharines, Ont.
Nootka Marble Quarries, Ltd., Victoria, B.C.
Patterson & Chandler, Vancouver ,B.C.
Reid, Robert, Montreal.
Renfrew White Granite Co., Ltd., Ottawa.
Smith Marble & Constr. Co., Ltd., Montreal.
St. Lawrence Granite & Marble Wks., Montreal.
Western Stone Co., Ltd., Winnipeg, Man.

MARBLE for Mantles, Tables, Benches, Fountains, Columns, Art Work, Etc.

Dominion Marble Co., Ltd., Montreal.
Fletcher Mfg. Co., Ltd., Toronto.
Marble & Tile Co. of Canada, Ltd., Winnipeg.
Patterson & Chandler, Vancouver, B.C.

MARGARINE, or butterine, a substitute for butter, composed of neutral lard and oleo-oil with the addition of some butter, cream, or milk. In the highest grade butter is used, in the medium cream and milk, and in the lowest milk. In the last, cotton-seed oil or some other vegetable oil is often substituted for part of the neutral lard and oleo-oil. The quality depends greatly on the care with which the ingredients are amalgamated, and the temperature at different stages of the process. The greatest producers of margarine are Germany and the Netherlands, and the United States comes next in order.

MARINE and SHIP SUPPLIES.

Forhan, Thos. & Co., Halifax, N.S.
Thompson Bros., Liverpool, N.S.

MARJORAM.—Oil of marjoram is obtained from a plant and is used as a liniment by farriers. This and thyme oil are frequently sold under the same name.

MARKING NUTS, the seeds of a tree so named because the juice of the hard outer shell can be used as marking-ink. **(See also VARNISH.)**

MARMALADE. (See ORANGE.)

MARMALADE.

British Canadian Canners, Ltd., Hamilton.
Canada Preserving Co., Ltd., Hamilton.
Imperial Extract Co., Toronto.
Kootenay Columbia Preserving Works, Nelson, B.C.
Kootney Jam Co., Ltd., The, Mission City, B.C.
Lytle, The T. A., Co., Ltd., Toronto.
Stuart, Ltd., Sarnia, Ont.
St. Louis Preserving Co., Ltd., Montreal.
Upton, The T., Co., Ltd., Hamilton.
Wagstaffe, Ltd., Hamilton.

MARMOT, the Alpine marmot of Europe and the American marmots, popularly called woodchucks, yield furs of some value.

MARSALA.—A brown wine grown in the west of Sicily and shipped at the port of Marsala.

MARTEN, a genus of small carnivorous animals closely allied to the weasels. The fur is much esteemed, the most valuable being that of the sable. The pine marten and the common marten also yield good furs. **(See also KOLINSKI.)** North American sable or marten is a fu rof closely resembling the pine marten. The Pekan, Fisher, or Pennant's marten, is a large variety, and is called by hunters "black fox."

MASHERS, Potato.

Lyster Wood Box Turning & Enameling Co., Ltd., Lyster, Que.
Thomas Bros., Ltd., St. Thomas, Ont.

MASSICOT. (See LEAD.)

MASSOY BARK, or Missoy. The bark of a species of Cinnamon, which grows in New Guinea and the neighbouring islands.

MASTIC, a gum resin derived from tree which grows in Mediterranean lands, and especially in the island of Chios. It is used by dentists and in the preparation of the almost colourless varnish with which paintings are often protected. The wood is used in inlaying, and in Algeria a tanning extract is prepared from the leaves. Several cements for china, marble, metals, &c., are also called mastics. They are made of various materials—gum-resins, white of egg, bullock's blood, litharge, chalk, zinc, and other metals.

MATCHES.—After the small chips of wood, or splints, have been soaked in paraffin to render them more combustible, their ends are dipped in an igniting composition, consisting principally of phosphorus and chlorate of potash or lead dioxide. For safety matches the composition is made of chlorate of potash and sulphide of antimony cemented with glue, and the rubbing surface is coated with phosphorus and antimony. Of late matches have been made with hyposulphite of lead instead of phosphorus, the latter being injurious to the health of the workmen. In vestas bits of stearin tapers take the place of the wooden splints. Vesuvians have a large head composed of slow-burning material, such as charcoal, saltpetre, &c.

MATCHES (Sulphur, Parlor, Safety, Wax Vesta, Flamers, Etc.)

Canadian Match Co., Ltd., Drummondville, Que.
Dominion Match Co., Ltd., The, Deseronto, Ont.
Eureka Match Co., Halifax, N.S.
Eddy, The E. B., Co., Ltd., Hull, Que.
Flewelling, G. & G. Co., Ltd., St. John, N.B.
Saginaw Match Co of Canada, St. Thomas, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

MATE.—Yerba mate, or Paraguay tea, grows in Paraguay, in the province of Missiones, Argentina, and in the southern provinces of Brazil—Matto Grosso, Santa Catharina, Rio Grande do Sul, and Parana, and eastward to the Serra do Mar. The tea is the leaves and twigs of a species of holly, and owes its stimulating property to an alkaloid very similar to caffeine. The consumption of mate is increasing in South America, but efforts to introduce it into Europe have hitherto failed.

MATICO, the hairy leaves of a kind of pepper which grows in the damp forests of Peru, Brazil, and Panama. They are used as a styptic.

MATS.—Mats and matting are made in many countries and of various materials. In Russia they are woven of lime-tree bast, in East Prussia of rushes, in France of straw, and in Spain of esparto grass and reeds. Coir and jute are commonly used materials. Chinese and India mats are among the most important as articles of trade. The former are composed of the fibres of Arundo mitis, and some of them from the fibres of Cyperus tegetiformis. In India palms and other fibres are used. The best are made at Midnapur, cheaper articles at Hoogly. Travancore mats are made of C. textiles.

MATS, Asbestos, Stove.

Wright, E. T., & Co., Hamilton.

MATS, Axminster, Brussels, Wilton.

Brinton Carpet Co., Peterborough, Ont.
Dominion Axminster Co., Ltd., The, Toronto.
Guelph Carpet Mills Co., Ltd., The, Guelph, Ont.
Toronto Carpet Mfg. Co., Ltd., The, Toronto.

MATS, Doily.

Collings Mfg. Co., Toronto.
Montreal Quilting Co., Ltd., Montreal.

MATS, Door (Cocoa).

Cobourg Matting & Carpet Co., Ltd., The, Cobourg, Ont.
Ideal Mat Co., Windsor, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

MATS, Door (Corn). .

Thomas Bros., Ltd., St. Thomas, Ont.

MATS, Door (Wire).

Andrews Wire Works of Canada, Ltd., Watford, Ont.
Canada Steel Goods Co., Ltd., Hamilton.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Greening, The B., Wire Mfg. Co., Ltd., Hamilton.
Meadows, Geo. B., Wire, Iron & Brass Works Co., Ltd., Toronto.

MATS, Rubber, Auto, Carriage, Cuspidor, Change, Door, Etc.

Canadian Consol. Rubber Co., Ltd., Montreal. .
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
Gutta Percha & Rubber, Ltd., Toronto.

MATTRESSES.

Alaska Bedding Co., Ltd., Winnipeg.
Alaska Feather & Down Co., Ltd., Montreal.
Alberta Bedding Co., Ltd., Calgary, Alta.
Anchor Bedding Co., Ltd., Toronto.
Berlin Bedding Co., Ltd., Berlin, Ont.
Brandon Mattress Factory, Brandon, Man.
British Columbia Bedding & Upholstering Co., Ltd., Vancouver, B.C.
Canadian Feather & Mattress Co., Ltd., Toronto.
Dixon Mfg. Co., The, Calgary, Alta.
Dymond Colonial Co., Ltd., Strathroy, Ont.
Edmonton Tent & Mattress Co., Ltd., Edmonton, Alta.
Fournier, Edouard, Montreal.
Gale, Geo., & Sons, Winnipeg, Man., and Waterloo, Que.
Gold Medal Furniture Mfg. Co., Ltd., Toronto.
Golden Fleece Bedding Co., Toronto.
Ideal Bedding Co., Ltd., Toronto.
Krug Bros. Co., Ltd., Chesley, Ont.
Leslie's, Winnipeg, Man.
Mason, F. & S., St. Andrew's, N.B.
McLeod Bros., Truro, N.S.
Membery, G. D., & Sons, Hamilton.
Meyer Bros., Toronto.
Munro Steel & Wire Works, Ltd., Winnipeg.
Munro Wire Works, Ltd., New Glasgow, N.S.
Ontario Spring Bed. & Mattress Co., Ltd., London, Ont. .
Restmore Mfg. Co., Ltd., Vancouver, B.C.
Rolland Freres, Montreal, Que.
St. Lawrence Furniture Co., Riviere du Loup, Que.
Stamco, Ltd., Saskatoon, Sask.
Standard Bedding Co., Toronto.
Thompson Mattress Co., The, Montreal.
Western Tent & Mattress Co., Calgary, Alta.
Whitworth & Restall, Toronto.

MAULS.

Coghlin, B. J., Co., Ltd., Montreal.
Cumming, J. W. & Son, Ltd., New Glasgow, N.S.
Smart, The James, Mfg Co., Ltd., Brockville, Ont.
Whitman & Barnes Mfg. Co., St. Catharines, Ont.

MAW SEED, a name given to the seeds of the opium poppy when sold as food for caged birds.

MEAT. (See **CATTLE, HOGS, SHEEP,** water to which spices are sometimes added. It is still consumed by Russians, Poles, and Scandinavians, and a drink is also made from honey in Northern Asia, Ethiopia, Madagascar, and South Africa.

MEAL. (See **CATTLE, HOGS, SHEEP, FOWLS,** &c.)

MEAL, Bone.

Freeman, The W. A., Co., Ltd., Hamilton.
Nova Scotia Fertilizer Co., Halifax, N.S.

MEAL, Buckwheat.

Fawcett, Milling Co., Moncton, N.B.
Hugh Chisholm, Long Point, N.S.
Quance Bros., Delhi, Ont.

MEAL, Calf.

International Stock Food Co., Ltd., Toronto.
Smith, F., & Co., Ltd., Toronto.

MEAL, Corn.

Calder, Fraser Co., Ltd., Dartmouth, N.S.
Fawcett Milling Co., Moncton, N. B.
D. G. Hanson, St. Andrew's, N.B.
Maritime Cornmeal Mills, St. John, N.B.
St. John Milling Co., St. John, N.B.
Gunn & Co., Ltd., Halifax, N.S.
Halifax Meal Mills, Ltd., Halifax, N.S.
Johnston & McDonald, New Glasgow, N.S.
Atlantic Milling Co., Pictou, N.S.
M. Morrison & Son, Sydney, N.S.
Roblin Milling Co., Ameliasburg, Ont.
Munro Bros., Stellerton, N.S.
Colin Wigle & Sons, Amherstburg, Ont.
Romain Dean, Beamsville, Ont.
J. P. Lett & Bros., Bedford Mills, Ont.
T. H. Taylor & Co., Ltd., Chatham, Ont.
Naylor-Osborne Co., Ltd., Essex, Ont.
James Dunlop Co., Ltd., Hamilton.
T. R. Flood, Harrow, Ont.
James Cumming, Lyn, Ont.
E. .R. White, Orwell, Ont.
Empire Flour Mills, St. Thomas, Ont.
Parkinson Cereal Co., Thornbury, Ont.
Canadian Cereal & Flour Mills, Tillsonburg, Ont.

Chisholm Milling Co., Toronto.
Deseronto Milling Co., Tweed, Ont.
City Flour Mills, Windsor, Ont.
Hopkins Bros., Coaticook, Que.
Peter McArthur & Son, Dewitteville, Que.
Ogilvie Flour Mills, Ltd., Montreal.

MEAL, Corn, Oil Cake.

Alberta Linseed Oil Mills, Medicine Hat, Alta.
St. Lawrence Starch Co., Ltd., Port Credit, Ont.

MEAL, Gluten.

Canada Starch Co., Ltd., Brantford, Ont. and Montreal, Que.
St. Lawrence Starch Co., Ltd., Port Credit, Ont.

MEAL, Linseed.

Canada Linseed Oil Mills, Ltd., Montreal.
Dominion Linseed Oil Co., Ltd., The, Montreal, Que., and Baden, Ont. .
McDonald, Burns & Co., Dresden, Ont.
Nicholson & Brock, Toronto, Ont.

MEAL, Pea.
Brown, H. & Sons, Carleton Place, Ont.

MEAL, Rye.

Quance Bros., Delhi, Ont.

MEAL, Sugar Beet, for Stock and Poultry.

Dominion Sugar Co., Ltd., Wallaceburg, Ont.

MEASURES.
Fairbanks, E. & T., & Co., Ltd., Sherbrooke, Que.
Fletcher Mfg. Co., Ltd., Toronto.
Thomas Bros., Ltd., St. Thomas, Ont

MEATS, Cooked and Canned.

British Canadian Canners, Ltd., Hamilton.
Clark, W., Montreal, Que.
Collingwood Packing Co., Ltd., Collingwood, Ont.
Davies, The Wm., Co., Ltd., Toronto.
Dominion Abattoir, Ltd., London, Ont.
Dominion Canners, Ltd., Hamilton.
Harris Abattoir Co., Ltd., The, Toronto.
Imperial Packing Co., Ltd., Woodstock, N.B.
Ingersoll Packing Co., Ltd., Ingersoll, Ont.
Oshawa Canning Co., Ltd., The, Oshawa, Ont.

MEATS, Dressed.

Brown, J., & Co., Winnipeg.
Burns, P. & Co., Ltd., Calgary, Alta.
Davies, The Wm. Co., Ltd., Toronto .
Dominion Abattoir, Ltd., London, Ont.
Gallagher-Holman-Lafrance Co., Ltd., Winnipeg.
Gordon Ironside & Fares Co., Ltd., Winnipeg.
Gunn's, Ltd., Toronto.
Harris Abattoir Co., Ltd., The, Toronto.
Hunnisett, Frank, Jr., Toronto.
Montreal Abattoirs, Ltd., Montreal.
O'Keefe & Drew Abattoir Co., Ltd., Chatham, Ont.
Russell, Baker Packing Co., Prince Albert, Sask.
St. Thomas Packing Co., Ltd., The, St. Thomas, Ont.
Swift Canadian Co., Ltd., West Toronto, Ont., and Winnipeg, Man.
Vogel Meat & Packing Co., Ltd., Strathcona, Alta.
Western Packing Co. of Canada, Ltd., Winnipeg.
Whyte Packing Co., Ltd., The, Stratford, Ont.

MEATS, Jellied.

Davies, The Wm., Co., Ltd., Toronto.
Dominion Abattoir, Ltd., London, Ont.

MEDALS AND BADGES.

Birks, Henry, & Sons, Ltd., Montreal.
Capp, The T. W., Co., Toronto.
Caron Bros., Montreal.
Ellis, P. W., & Co., Ltd., Toronto.
Hamilton Stamp & Stencil Works, Ltd., Hamilton.
Lees, Geo. H., & Co., Ltd., Hamilton.
Lemaitre, Paul, Montreal.
Meriden Britannia Co., Hamilton.
Pritchard-Andrews Co., of Ottawa, Ltd., Ottawa.
Roden Bros., Ltd., Toronto.
Scully, Wm., Montreal.
Wanless, John, & Co., Toronto.
Zock, J. J., & Co., Ltd., Toronto.

MEDICINES, Proprietary.

Brayley Drug Co., Ltd., St. John, N.B.
British-Canadian Industrial Co., Ltd., Ottawa.
Canada Representatives, Ltd., Toronto.
Chamberlain Medicine Co., Ltd., Toronto.
Comstock, W. H. Co., Ltd., Brockville, Ont.
Franco-American Chemical Co., Montreal.
Frasier, Thornton & Co., Ltd., Cookshire. Que.
Fruitatives Co., Ltd., The, Ottawa.
Gates, C., & Son, Middleton, N.S.
Hanford, G. C., Mfg. Co., Ltd., Montreal.
Lewis, A. H., Medical Co., Smith's Falls, Ont.
Lyman Bros. & Co., Ltd., Toronto.
Lymans, Ltd., Montreal.
Mathieu, The J. L. Co., Sherbrooke, Que.
Mentholatum Co., The, Bridgeburg, Ont.
Merrill Medical Co., Ltd., Toronto.
Milburn, T., Co., Ltd., Yarmouth, N.S.
Minard's Liniment Co., Ltd., Yarmouth, N.S.
Morin, Dr. Ed., & Co., Quebec, Que.
Northrop & Lyman Co., Ltd., Toronto.
Parke, Davis & Co., Walkerville, Ont.
Purgatives, Societe des Eaux, Riga, Montreal.
Rawleigh, N. T., Medical Co., Winnipeg.
Rundle, Geo. H. & Son, Co., Ltd., Windsor, Ont.
Sanol Mfg. Co. of Canada, Ltd., Winnipeg.
Saywer Medicine Co., Montreal, Que.
Scott & Browne, Toronto.
Taylor, John F., Pharmacal Co., Ltd., Toronto.
United Drug Co., Ltd., Toronto, Ont.
Wampole, Henry K., & Co., Ltd., Perth, Ont.
Wells & Richardson, Co., Ltd., The, Montreal.
White, A. J. & Co., Ltd., Montreal, Que.
World's Dispensary Medical Association, Bridgeburg, Ont.

MEDICINES, Veterinary.

Frasier, Thornton & Co., Ltd., Cookshire, Que.
Hackney Stock Food Co., Toronto.
Heney Carriage & Harness Co., Ltd., Montreal.
International Stock Food Co., Ltd., Toronto.
Jenkins, W. A., Mfg., Co., London, Ont.
Pratt Food Co., of Canada, Ltd., The, Toronto.
United Drug Co., Ltd., Toronto.
Wampole, Henry K., & Co., Ltd., Perth, Ont.

MEDLAR, the common medlar, is a small tree bearing a small roundish fruit, which is hard and sour until it becomes soft and brown by decay. Several varieties are cultivated in France, Italy and Germany.

MEDOC.—Some of the best clarets are grown in the Medoc peninsula between the Gironde and the Bay of Biscay. The name Medoc, however, is generally given to the lighter clarets of the district.

MEERSCHAUM, hydrated silicate of magnesia or sepiolite, occurring in many European countries. The best quality, however, is found in the neighborhood of Eskishehr in Asia Minor, and is exported from Russia to Europe and America. In Paris and Nuremberg meerschaum pipes and other articles are manufactured, but the great seat of the industry is Vienna, where 100,000 pipes are turned out annually. Various compositions are made resembling closely the real meerschaum. The best of these consists of meerschaum waste mixed with kaolin or some other siliceous earth.

MELONS.—The musk melon, originally a native of the East, is cultivated in the southern countries of Europe, in North Africa, and America. It is imported from Portugal and Spain, and also the water melon, which attains an enormous size in the southern United States. Some very fine rarities are grown in Canada. The Montreal melon is most delicious.

MENHADEN, a fish of the herring family caught off the Atlantic coast of the United States for the sake of its oil.

MENTHOL. (See **MINT.**)

MERCURY, or Quicksilver. The most common ore of mercury is cinnabar (sulphide of mercury), which is mined chiefly at Almaden in Spain, Idria in Carniola, at New Almaden, and other places in Canlifornia, where the ore contains a very large percentage of pure metal. It is greatly in demand for gold and silver mining, as it forms an amalgam with silver and gold and thus facilitates the separation of the metals from their ores. Amalgams of mercury are also used in gilding and silvering and in stopping teeth. Pure quicksilver is employed in the construction of barometers, thermometers, and other scientific instruments. In medicine the forms most employed are the sub-chloride, called calomel, and white precipitate (a chloride of mercury and ammonium), and the chloride (corrosive sublimate) is a valuable disinfectant and preservative. The pigment vermilion is the sulphide, or cinnabar, above-mentioned, but is often prepared by combining the sulphur and mercury in the laboratory.

MERINO, a breed of sheep formerly confined to Spain, but now bred chiefly in Australia and South America. Its wool is exceedingly fine and silky.

METALS.—These are described under their separate names. For bell-metal, gun-metal, &c., see **ALLOYS.** (**See also DUTCH METAL and YELLOW METAL.**)

METAL, Electrotype, Stereotype, Linotype and Monotype.

Canada Metal Co., Ltd., Toronto.
Cuthbert, W. R., & Co., Montreal.
Hoyt Metal Co., The, Toronto.
Magnolia Metal Co., Montreal.
Robertson, The James, Co., Ltd., Montreal.
Shaw & Mason, Ltd., Sydney, N.S.
Tallman Brass & Metal Co., Hamilton.

METAL, Expanded.

Steel & Radiation, Ltd., Toronto.
Trussed Concrete Steel Co., of Canada, Ltd., Walkerville Ont.

METAL, Perforated Sheet.

Canada Wire & Iron Goods Co., Hamilton.
Greening, The B., Wire Co., Ltd., Hamilton.

METAL SHEETS, Crimped and Beaded.

Metal Shingle & Siding Co., Ltd., Preston, Ont.

METAL SPECIALTIES.

Century Electric Co., Montreal.
Great West Specialty & Iron Foundry Co., Ltd., Edmonton, Alta.
Hardware Specialties, Ltd., Winnipeg.
Invincible Renovator Mfg. Co., Ltd., Toronto.
Metal Workers Specialties, Ltd., Toronto.

METAL SPINNERS.

Chadwick Brass Co., Ltd., The, Hamilton.
Colonial Fixtures, Ltd., The, Toronto.
Edmunds, J. H., & Co., Toronto.
Garry Mfg. Co., Ltd., Winnipeg.
Kinzinger, Bruce & Co., Ltd., Niagara Falls, Ont.
Mitchell, The Robt., Co., Ltd., Montreal.

METERS, Electric, Volt, Watt, Ampere.

Canadian Crocker-Wheeler Co., Ltd., The, St. Catharines, Ont.
Canadian General Electric Co., Ltd., Toronto.
Canadian Westinghouse Co., Ltd., Hamilton.
Forman, John, Montreal.
Packard Electric Co., Ltd., St. Catharines, Ont.

METERS, Gas.

Canadian Meter Co., Ltd., Hamilton.
Dominion Gas Meter Works, London, Ont.
Standard Meter Co., Ltd., The, Toronto.

METHYLATED SPIRITS, a mixture of nine parts of alcohol with one of pyroxylic or wood spirit, sold for manufacturing and industrial purposes and the preservation of zoological specimens.

MEXICAN GRASS.—Agave or bromelia brushwood exported for brush-making.

MEZQUITE GUM.—A small tree of the Mimosæ sub-order, and other species, yields a large quantity of gum similar to gum arabic. About 74 tons are collected annually in the southern States of Mexico, much of which is sent to the United States, where, like chicle gum, it is used for chewing.

MICA.—The most useful kind of mica is potash mica, a silicate of alumina and potash, called muscovy glass in Russia, where it is used for windows, and hence called by mineralogists, muscovite. Other forms are phlogopite, or magnesian mica, biotite, lepidolite, &c. Canada and India are the largest producers. The plates are used for lanterns, the fronts of stoves, &c., being bad conductors of heat, and the small flakes and cuttings are ground down to give a gloss to wall-paper, but its most important application at the present day is as an electrical insulator. Thin films are now cemented together into sheets, known as micanite. Talc is used for many of the same purposes, with the exception, perhaps, of Ceylon, Canada is the only country as far as is yet known in which the variety phlogopite—"Amber mica," as it is termed in the trade—is known to occur in any quantities. The mica of commerce is of two kinds—muscovite or "white mica" and the above-mentioned "amber mica." Of the two varieties, "amber mica" commands the higher price, being soft and more flexible and altogether more suitable for use as an insulator in the manufacture of electrical apparatus.

The amber mica deposits in Canada occur within an area of approximately 1,200 square miles in the Province of Quebec and 900 square miles in the Province of Ontario. The two districts are separated by the Ottawa River. The average value of the mica produced annually in Canada during the last ten years was about $300,000. The exports of mica for the fiscal year ending with March 31st, 1914, were $210,178.

MICA.

Blackburn Bros., Ottawa.
Canada Mica Mfg. Co., Ltd., Ottawa.
Devlin & Pritchard, Ottawa.
Kent Brothers, Kingston, Ont.
Laurentide Mica Co., Ltd., Ottawa.
McConnell, Rinaldo, Ottawa.
Munsell, Eugene, & Co., Ottawa.

MICA SPLITTINGS.

Canada Mica Mfg. Co., Ltd., Ottawa.
Devlin & Pritchard, Ottawa.
Kent Brothers, Kingston, Ont.
Munsell, Eugene, Co., Ottawa.

MICROSCOPES.

Gowlland Optical Co., Ltd., Montreal.

MILK.—International commerce in this article is chiefly confined to canned and condensed milk. The milk is subjected to heat at a low temperature (112 deg. to 140 deg. F.) and pressure until it has lost about three-fourths of its water, sugar of one-eighth to one-twelfth of the fresh milk being previously added. Condensed milk is prepared chiefly in Switzerland, Holstein, and Bremen, Canada and in the United States (especially New York and Illinois). Asses' and mares' milk is preserved, as well as cows'. Powdered milk is subjected to evaporation until it is of the consistency of paste, and is then passed between granite rollers and exposed to a current of dry air. Milk sugar is made in Switzerland and the Bavarian highlands from whey by crystallization. It is used in silvering mirrors and as a vehicle for medicines.

According to the last census the total production of milk in Canada during the year 1910 was 9,806,741,348 pounds. In the same year the amount of milk required for the production of Canada's export of dairy products was 2,236,663,689 pounds. The total consumption of milk in Canada in the same year was therefore 7,609,948,868 pounds.

The total exports of cream and milk condensed, canned or preserved, from Canada during the year ending March 31st, 1914, was valued at $2,008,455. **(See CHEESE and BUTTER.)**

MILK, Condensed.

Borden Milk Co., Ltd., The, Montreal.
Canadian Condensing Co., Ltd., Chesterville, Que.
Charlottetown Condensed Milk Co., Ltd., Charlottetown, P.E.I.
Crescent Creamery Co., Ltd., Winnipeg, Man.
Dominion Canners, Ltd., Hamilton.
Ewing, S. H., & Sons, Montreal.
Malcolm, J., & Son, St. George, Ont.

MILK, Dried.

Canadian Milk Products, Ltd., Toronto.

MILK, Evaporated.

Borden Milk Co., Ltd., The, Montreal.
Malcolm, J., & Son, St. George, Ont.

MILK, Preserved.

Hygienic Fresh Milk Co., Ltd., Antigonish, N.S.

MILLBOARD, a board made of wood pulp, waste material, such as old ropes and sacking, paper scraps, flax and jute refuse, wood, &c., reduced to a pulp. Some is made in moulds by hand, but the bulk now sent to market is made by machinery. Millboard is made into covers for books and boxes.

MILLET.—Various plants of the Panicum, Setaria, and other genera of grasses, which are grown as cereals. Common millet is grown in India; German millet is cultivated in Germany and the south of Europe. Millet is grown in India, Africa, and the south of Europe, and is known as Egyptian millet and Guinea corn. Sorghum is known in India as great millet. Polish millet is cultivated in Poland and eaten as rice. The seeds of a species of millet grass, which are smaller than those of millet proper, are ground in Peru into a very white flour. The world's crop is about 114½ million bushels in countries where returns are compiled. There are also large areas under millet in India, and this cereal is grown extensively by the natives of Africa.

MILLSTONES. (See BURR-STONES.)

MILL STONES.

Chinic Hardware Co., The, Quebec, Que.

MIMOSA BARK.—The bark of several species of acacia is exported for tanning from India (Babul bark), the Cape and Senegal, Reunion, and South America, and especially from Australia, where it is known as wattle bark. The decurrens of New South Wales yields the best bark, containing more than 30 per cent. of tannin.

MINERAL OILS. (See PARAFFIN and PETROLEUM.)

MINERAL WATERS.—At a large number of springs the water is bottled and exported into other countries. The most commonly sold waters are the alkaline acidulous waters of Apollinaris, Bilin, Vichy, and Vals; the muriated alkaline waters of Selters and Ems; the bitter waters of Budapest (Apenta, Æsculap, Hunyadi Janos, and Franz Josef springs), Kissingen, Friedrichshall, and Rubinat; the chalybeate waters of Spa, Kronthal, and Contrexeville; the muriated arsenical water of La Bourboule; and the exceedingly strong water of Levico, containing iron and a little copper, as well as arsenic. In the United States and Canada there are many mineral springs containing various ingredients, some of them closely resembling in their mineral contents the springs of Europe. Large quantities are bottled at the Saratoga springs, where there are alkaline, ferruginous, and other waters. The Virginian and Californian springs are also noted. Medicinal waters are also manufactured by mixing in chemicals, such as soda-water, Apollinaris, and Seltzer. What is generally sold, however, as siltzer waetr is simply water aerated with carbonic acid gas.

MINIUM.—Red oxide of lead. **(See LEAD.)**

MINK.—A small carnivorous animal of the genus Putorius, to which the ermine and ferret belong. The European vison, the Siberian vison and the American mink are nearly related, if not merely varieties of the same species. They frequent water and swim excellently. The fur is valuable, and the vison is hunted in Northern Europe, especially in Russia, but the American mink skins, obtained in New England and Canada are much superior.

MINT.—All the species of mint yield an essential oil more or less medicinal, but the most valuable plant is peppermint, which is cultivated at Mitcham in Surrey, England, in Provence, and in Michigan and New York States, and yields the well-known sweetmeat and drug. Menthol is a kind of camphor, left behind after the distillation of peppermint oil, and is especially abundant in Japanese mint.

MIRABELLES. (See PLUMS.)

MIRBANE.—Nitrobenzol, which has an odour of bitter almonds, and is used to perfume soap.

MIRROR PLATES, Bevelled and Plain.

Phillips Mfg. Co., Ltd., Toronto.
Queen City Glass Co., Ltd., Toronto.
Toronto Plate Glass Importing Co., Ltd., Toronto.

MIRRORS.

Bogardus, Wickens, Ltd., Vancouver, B.C.
Chesley Furniture Co., Ltd., Chesley, Ont
Clatworthy & Son, Toronto.
Consolidated Plate Glass Co. of Canada, Ltd., Toronto, Ont.
Hamilton Mirror Plate Co., Hamilton.
Hobbs Mfg. Co., Ltd., The, London, Ont.
Imperial Glass Works, Toronto.
Maritime Art Glass Works, Ltd., St. John, N.B.
Matthews Bros., Ltd., Toronto.
Montreal Paint & Glass Co., Ltd., Montreal.
Murray & Gregory, Ltd., St. John, N.B.
O'Shea, J. P. & Co., Montreal.
Prairie Glass Co., Ltd., The, Winnipeg.
Ramsay, Frank A., & Company, Montreal.
Reardon, Frank, Halifax, N.S.
Reliance Moulding Co., Ltd., Toronto.
Sharpe, C. A., Montreal.
Toronto Plate Glass Importing Co., Ltd., Toronto.

MISHMI.—The bitter rhizomes of Coptis tecta, of the order Ranunculaceæ, are gathered in Assam and used in India as a bitter tonic. In America the roots of C. trifoliata are similarly employed, and also yield a yellow dye.

MISPICKEL.—Bisulphide of iron and arsenic, the commonest ore of arsenic.

MITTS, Canvas, Leather Faced.

Storey, W. H., & Son., Ltd., Acton, Ont.

MITTS, Fur.

Brereton & Steward, Toronto.
Coristine, Jas., & Co., Ltd., Montreal.
Gnaedinger, L., Son & Co., Montreal.
Jose, R., Toronto.
Sandham & Thurston, Toronto.

MITTS, Leather.

Acme Glove Works, Ltd., Montreal.
Arnold, H. T., & Sons, Georgetown, Ont.
Balcer Glove Mfg. Co., Three Rivers, Que.
Brandon Tannery, Ltd., Brandon, Man.
Bremner, Alex., Tillsonburg, Ont.
Clarke, A. R. & Co., Ltd., Toronto.
Craig Cowan Co., Ltd., The, Toronto.
Delhi Mfg. Co., The, Delhi, Ont.
Durham Glove Co., Ltd., Bowmanville, Ont.
Eagle Leather Works, Montreal.
Frost & Donald, Dundas, Ont.
Galibert, F., Montreal.
Halls, Ltd., Brockville, Ont.
Holt, Renfrew & Co., Quebec, Que.
Hudson Bay Ktg. Co., Montreal.
Huron Glove Co., Ltd., The, Indian Lorette, Que.
Imperial Glove Co., The, Hamilton.
Laliberte, J. B., Quebec, Que.
Leloup, Alfred, Quebec, Que.
MacKenzie, Ltd., Ottawa, Ont.
Northland Ktg. Co., Ltd., Winnipeg.
Ross, Henry, Indian Lorette, Que.
Ryan, The Robert Co., Regd., Three Rivers, Que.
Savard, P. B., & Compagnie, Indian Lorette, Que.
Smart-Woods, Ltd., Ottawa.
Sovereign Mitt, Glove & Robe Co., Ltd., Delhi, Ont.
Storey, W. H. & Son, Ltd., Acton, Ont.
St. Lawrence Glove Works, Quebec, Que.
Waterloo Glove Mfg. Co., Waterloo, Ont.

MITTS, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal.

MITTS, Wool.

Avon Hosiery, Ltd., Stratford, Ont.
Ballantyne, R. M., Ltd., Stratford, Ont.
Beaumont, Joseph, Glen Williams, Ont.
Bird Woollen Mill Co., Ltd., Bracebridge, Ont.
Burritt, A., & Co., Mitchell, Ont.
Carss Mackinaw Clothing Co., Ltd., Orillia, Ont.
Crochet & Knitting Specialty Co. Toronto.
Eagle Knitting Co., Ltd. (operated by J. R. Moodie & Sons, Ltd.), Hamilton, Ont.
Forbes, R., Co., Ltd., Hespeler, Ont.
Goderich Knitting Co., Ltd., Goderich, Ont.
Hudson Bay Knitting Co., Montreal.
Massey Knitting Co., The, Montreal.
Penman's, Ltd., Paris, Ont.
Wood, J. T., Brussels, Ont.

MIXERS, Candy, Cake and Dough.

Fletcher Mfg. Co., Ltd., Toronto.
Greey, Wm., & J. G., Toronto, Ont.
LePage, C. H., Co., Ltd., Quebec, Que.
Wilson, C., & Son, Toronto.

MIXERS, Concrete.

Bruce Agricultural Works, The, Teeswater, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Goold, Shapley & Muir Co., Ltd., Brantford.
Ideal Concrete Machinery Co., Ltd., London, Ont.
London Concrete Machinery Co., Ltd., London, Ont.
Marsh & Henthorn, Ltd., Belleville, Ont.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal.
Ltd., Montreal.
Mussens, Ltd., Montreal.
Renown Engine & Machine Co., Montreal.
Sorel Iron Works, Ltd., Sorel, Que.
Wettlaufer Bros., Toronto.

MOCCASINS, Leather.

Acme Glove Works, Ltd., Montreal.
Beal Bros., Ltd., Toronto.
Borbridge, S., & H., Ottawa.
Brandon Tannery, Ltd., Brandon, Man.
Clarke, A. R. & Co., Ltd., Toronto.
Galibert, F., Montreal.
Gendron Penetang Shoe Mfg. Co., Penetanguishene, Ont.
Holland, G. A. & Son, Co., Montreal, Que.
Holt, Renfrew & Co., Quebec, Que.
Hudson Bay Knitting Co., Montreal, Que.
Lake, The G. M., Co., Ltd., Bridgetown, N.S.

Laliberte, J. B., Quebec, Que.
Palmer, The John, Co., Ltd., Fredericton, N.B.
Palmer, McLennan Shoe Pack Co., Ltd., Fredericton, N.B.
Ross, Henry, Indian Lorette, Que.
Ryan, The Robert, Co., Rgd., Three Rivers, Que.
St. Amand, Alexandre, Indian Lorette, Que.
Savard, P. B., & Compagnie, Indian Lorette, Que.
Smart-Woods, Ltd., Ottawa, Ont.
Standard Mfg. Co., Ltd., Sackville, N.B.

MODELS, Metal and Wood.

Invincible Renovator Mfg. Co., Ltd., Toronto.
Wells Pattern & Model Works, Toronto.

MOHAIR.—The silky white hair of the Angora goat, a native of Asia Minor, whence it has been introduced into the United States, France, Cape Colony, and Victoria. Asia Minor and the Cape are the chief exporting countries. **(See CAMLET.)**

MOLASSES.—The syrup left after cane juice has been boiled and the sugar taken out. Rum is made from it, and a small quantity of sugar is sometimes extracted from it.

MOLASSES, for Stock Food.

Dominion Sugar Co., Ltd., Wallaceburg, Ont.

MOLESKIN CLOTH.

Dominion Textile Co., Ltd., Montreal.

MOLYBDENUM.—This mineral occurs in Europe, Siberia, and North America, chiefly in the form of the bisulphide, called Molybdenite, and resembling graphite in appearance, and less frequently as wulfenite, or molybdate of lead. Till recently molybdic acid and molybdate of lead, used as chemical re-agents, and the latter also in the colouring of china, were the only forms in which this metal was employed, but now it has been found that molybdenum imparts peculiar properties to hard steel. The quantity required is small, and the output being a few thousand tons of ore. Recently a very promising deposit in the vicinity of Enteysial, in Eastern Ontario, has been discovered and is being worked.

MONAZITE, a phosphate of the rare metals cerium, lanthanum, and didymium, with a varying percentage of thoria. The last is the valuable ingredient, being used in the manufacture of incandescent gas mentles. **(See also THORIANITE.)**

MONKEY SKINS.—Thousands of skins of black and grey monkeys are shipped from Senegal and Guinea, and are made into muffs and rugs.

MONUMENTS.

Argentuil Granite Co., Ltd., Montreal.
Berlin Marble Works, The, Berlin, Ont.
Brodie, Jas., & Son, Iberville, Que.
Colonial Granite Co., Ltd., New Glasgow, N.S.
Epps, Dodds & Co., St. George, N.B.
Hamilton Granite Works, Hamilton, Ont.
Hooper's Marble & Granite Co., Ltd., Winnipeg.
McGrattan, H., & Sons, St. George, N.B.
McIntosh Granite Co., Ltd., Toronto.
Milne, Coutts & Co., Ltd., St. George, N.B.
Norton, S. B., Beebe Junction, Que.
Patterson & Chandler, Vancouver, B.C.
Renfrew White Granite Co., Ltd., Ottawa.
Reid, Robert, Montreal.
Somerville & Co., Brandon, Man.
Tayte, Meating & Co., St. George, N.B.

MOP WRINGERS.

White Mop Wringer Co., Inc., South Stukely, Que.

MOPS.

Canada Steel Goods Co., Ltd., Hamilton.
Taylor Scott & Co., Ltd., Palmerston, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

MORA.—The wood of the Mora excelsa, a tree of Guiana, which is much used for shipbuilding. The bark is a tanning material. **(See also FUSTIC.)**

MOREL, a kind of fungus eaten fresh in Southern and Central Europe, and dried and preserved for culinary purposes. It contains a poisonous ingredient which disappears in the process of drying, or may to a great extent be removed by soaking in water.

MOROCCO LEATHER. (See LEATHER.)

MORPHIA. (See OPIUM.)

MORTADELLA. Bologna sausage.

MORTARS.

Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.

MOSAIC.—Designs formed by various coloured pieces of glass, marble, or terra-cotta, laid down as pavements or wall decorations, and made into smaller ornaments. The country where mosaics are chiefly made is Italy, where two kinds are produced—Florentine mosaic, in which various coloured stones of the required size and shape are inlaid in slabs of marble; and the Roman mosaic, consisting of small rectangular pieces of opaque glass attached to a foundation with cement, or a vitreous composition. National mosaic factories have been established at St. Petersburg and Paris, but their work is not sold publicly.

MOSAIC GOLD.—Stannic sulphide. **See TIN.)**

MOSELLE.—The wines of the Moselle are noted for their aromatic flavour. Some of the best known are Berncastel, Brauneberger, Pisporter, and Zeltinger.

MOSS. (See ICELANDIC MOSS, CARRAGEEN MOSS, and SPANISH MOSS.)

MOTHER-OF-PEARL. (See PEARLS.)

MOTORCYCLES.

Brantford Auto Cycles, Ltd., Brantford, Ont.
Hendee Mfg. Co., The Toronto.

MOTORS, Electric.

Canadian Crocker-Wheeler Co., Ltd., The, St. Catharines, Ont.
Canadian Electrical & Motor Co., Ltd., Toronto.
Canadian General Electric Co., Ltd., Toronto.
Canadian Westinghouse Co., Ltd., Hamilton.
Consolidated Electric Co., Ltd., Toronto.

Electrical Construction Co., Ltd., The, London, Ont.
Fisher Electric & Mfg. Co., Ltd., Toronto.
Forman, John, Montreal.
Hinton Electric Co., Ltd., Vancouver, B.C.
Jones & Moore Electric Co., Ltd., Toronto.
Packard Electric Co., Ltd., St. Catharines, Ont.
Toronto & Hamilton Electric Co., Hamilton.
Turnbull Elevator Mfg. Co., Toronto.
Turner, John, & Son, Toronto.
Wagner Electric Mfg. Co. of Canada, Ltd., Montreal.
Zimmer Vacuum Machine Co., Ltd., Toronto.

MOTORS, Electric, Auto, Crane, Elevator, Fan, Railway, Alternating and Direct Current.

Canadian General Electric Co., Ltd., Toronto.
Canadian Westinghouse Co., Ltd., Hamilton.
Munderloh & Co., Ltd., Montreal, Que.

MOTORS, Gasoline, for Marine Purposes.

Fraser Machine & Motor Co., Ltd., New Glasgow, N.S.
Guarantee Motor Co., Hamilton.
Lachine Motor Works Co., Ltd., Lachine, Que.

MOULDERS' SUPPLIES.

Hamilton Facing Mill Co., Ltd., Hamilton.

MOULDINGS.

Abel-Fortin, J. P., & Co., Montreal.
Acme Sash & Door Co., Ltd., Winnipeg.
Aitchison, D., & Co., Hamilton.
Alberta Lumber Co., Ltd., Vancouver, B.C.
Allen, A. W. & Son, Middleton, N.S.
Anglin, S. & Co., Kingston, Ont.
Balcom, H. Z., Aylmer, Ont.
Ball Planing Mills Co., Ltd., Barry, Ont.
Beach, M. F. Co., Ltd., Winchester, Ont.
Benson & Bray, Ltd., Midland, Ont.
Blonde Lumber & Mfg. Co., Ltd., Chatham, Ont.
Boake Mfg.. Co., Ltd., Toronto.
Bobcaygeon Lumber Co., Bobcaygeon, Ont.
Booth, The W. Lumber Co., Ltd., Toronto.
Brandon Construction Co., Ltd., Brandon, Man.
British Canadian Lumber Corporation, Vancouver, B.C.
British Columbia Fir & Cedar Lumber Co., Ltd., Vancouver, B.C.
British Columbia Mills Timber & Trading Co., Vancouver, B.C.
Brown & Rutherford, Winnipeg.
Brunette Saw Mill Co., Ltd., New Westminster, B.C.
Burrard Lumber Co., Ltd., Vancouver, B.C.
Burrill Lumber Co., Ltd., Three Rivers, Que.
Canadian Pacific Lumber Co., Ltd., Vancouver, B.C.
Canadian Western Lumber Co., Ltd., Fraser Mills, B.C.
Canadian Woodworking Co., Ltd., Yarmouth, N.S.
Carew, John Lumber Co., Ltd., Lindsay, Ont.
Cargill Planing Mill Co., Cargill, Ont.
Carkner, D. & Co., Kenmore, Ont.
Chagnon, H. & Co., Montreal, Que.
Chalifour, O., Quebec, Que.
Chappell Bros. & Co., Ltd., Sydney, N.S.
Christie-Woodworking Co., Ltd., St. John, N.B.
Clark, W. H., & Co. Ltd., Edmonton, Alta.
Conklin Planing Mills, Kingsville, Ont.
Crevier & Fils, Montreal.
Crows' Nest Pass Lumber Co., Ltd., Wardner, B.C.
Cushing Bros., Ltd., Calgary, Alta.
Dand, Raymond, New Glasgow, N.S.
Demers, Paul, Montreal.
Dempster, Estate of James, Halifax, N.S.
Doak Lumber & Mfg. Co., Ltd., Saskatoon, Sask.
Dyment-Baker Lumber Co., London, Ont.
Eaton, J. R. & Sons, Ltd., Orillia, Ont.
Eau Claire & Bow Rivèr Lumber Co., Calgary, Alta.
Eddy, Geo. & Co., Bathurst, N.B.
Edwards, W. C., & Co., Ltd., Ottawa.
False Creek Lumber Co., Ltd., Vancouver, B.C.
Finlay, J. & Sons Co., Norwood, Ont.
Georgian Bay Shook Mills, Ltd., Midland, Ont.
Gibson-McCormack-Irwin Co., Ltd., West Toronto.
Gignac, J. H., Ltd., Quebec, Que.
Gosselin, Jos., Levis, Quebec.
Grant, John J., New Glasgow, N.S.
Gravel, The A., Lumber Co., Ltd., Etchemin Bridge, Que.
Hadley, The S., Lumber Co., Ltd., Chatham, Ont.
Hanbury, H. A., & Co., Ltd., Vancouver, B.C.
Hanbury Mfg. Co., Ltd., Brandon, Man.
Hancock, T. H., Toronto.
Harquail, J. & D. A., Co., Ltd., Campbellton, N.B.
Harrison, John, & Sons, Co., Ltd., Owen Sound, Ont.
Hastings Shingle Mfg. Co., Ltd., The, Vancouver, B.C.
Hesson, W. J. & Co., Sault Ste. Marie, Ont.
Hillsboro' Woodworking Mfg. Co., Hillsboro', N.B.
Hood, W. J., Winnipeg, Man.
Kelowna Saw Mill Co., Ltd., Kelowna, B.C.
Kirk, D. G., Woodworking & Contracting Co., Antigonish, N.S.
Knechtel, The S., Wood Turning Co., Southampton, Ont.
Knight Bros., Co., Ltd., The, Burk's Falls, Ont.
Laird Bros., Dresden, Ont.
Lambert, A. G., & Co., Nelson, B.C.
Leduc & Fortin, Beauharnois, Que.
Leigh, Jas. & Sons, Victoria, B.C.
Lemon, Gonnason & Co., Victoria, B.C.
Ludlam-Ainslie Lumber Co., Ltd., Hamilton.
MacInnes, John, & Son, Ltd., Halifax, N.S.
Matthews Bros., Ltd., Toronto.
Matthews Sash & Door Co., Fort William, Ont.
McAuliffe, Davis Lumber Co., Ltd., Ottawa.
McDiarmid & Clark, Brandon, Man.
McDonald-Rowe Woodworking Co., Charlottetown, P.E.I.
McLaren Lumber Co., Ltd., Brockville, Ont.
Moore-Whittington Lumber Co., Ltd., Victoria, B.C.
Murray, G. W., Co., Ltd., Winnipeg.
Nagle & Mills, Ingersoll, Ont.
Nelson & Foster, Winnipeg, Man.
Nesbitt, E. T., Quebec, Que.
Neville, Robert, Montreal.
New Ladysmith Lumber Co., Ltd., Nanaimo, B.C.
Nicolet Falls Pulp & Lumber Co., Ltd., Nicolet Falls, Que.
Otis-Staples Lumber Co., Ltd., Wycliffe, B.C.
Paquet & Godbout, St. Hyacinthe, Que.
Patterson-Tilley Co., Ltd., Hamilton.
Pauze, U. & Fils Co., Montreal, Que.
Pigeon River Lumber Co., Port Arthur, Ont.
Quance Bros., Delhi, Ont.
Rathbone, George, Ltd., Toronto, Ont.
Rathbun Co., The, Deseronto, Ont.
Reliance Moulding Co., Ltd., Toronto.
Risteen, J. C. & Co., Fredericton, B.C.
Riverside Lumber Co., Ltd., Calgary, Alta.
Robertson & Hackett, Vancouver, B.C.
Ross-Saskatoon Lumber Co., Ltd., Waldo, B.C.
Sarrasin Napoleon et Fils, Montreal.
Sash & Door Mfg. Co., Ltd., Three Rivers, Que.
Scotia Woodworkers, Ltd., Oxford, N.S.
Scott, The J. C. Co., Ltd., Toronto, Ont.
Shearer, The Jas. Co., Ltd., Montreal, Que.
Sheppard, Jas. & Sons, Sorel, Que.
Smith, John B. & Sons, Ltd., Toronto.
Springhill Mfg. Co., Springhill, N.S.
Telfer Bros., Ltd., Bridgewater, N.S.
Terminal Construction Mfg. Co., Ltd., Vancouver, B.C.
Terminal Lumber & Shingle Co., Ltd., Vancouver, B.C.
Tobin Mfg. Co., Bromptonville, Que.
Tremblay, F., & Co., Montreal.
Victor Woodworks, Ltd., Amherst, N.S.
Victoria Lumber & Mfg. Co., Ltd., Chemainus, B.C.
Walsh Sash & Door Co., New Westminster, B.C.
Walton, George & Co., Ltd., Belleville, Ont.
Wattsburg Lumber Co., Ltd., Wattsburg & Proctor, B.C.
Western Mfg. Co., Ltd., The, Regina, Sask.
Western Planing Mills Co., Ltd., Calgary, Alta.
Westport Woodworking Co., Ltd., Westport, Ont.
Williamson, Wm., Toronto.
Wilson Bros., Ltd., Collingwood, Ont.
Wise, Henry, St. Catharines, Ont.
Woodstock Woodworking Co., Woodstock, N.B.
Woodworkers, Ltd., Victoria, B.C.

MOULDINGS, Picture.

Canadian Picture Frame Co., Toronto.
Cushing Bros., Co., Ltd., Calgary, Alta.
Eaton, J. R., & Sons, Ltd., Orillia, Ont.
Matthews Bros., Ltd., Toronto, Ont.
Phillips Mfg. Co., Ltd., Toronto.
Reliance Moulding Co., Ltd., Toronto.
Scott, M., & Sons, Montreal, Que.

MOULDINGS, Brick and Tile.

Baird, H. C., Son & Co., Ltd., Parkhill, Ont.
Ideal Concrete Machinery Co., Ltd., London, Ont.

MOULDS, Butter.

Taylor, Scott & Co., Ltd., Palmerston, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

MOULDS, Button (Wood).

Dominion Button Works, The, Montreal.
Knechtel, The S., Wood Turning Co., Southampton, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.

MOULDS, Candy, Ice Cream and Jelly.

Fletcher Mfg. Co., Ltd., Toronto,

MOULDS, Concrete Tile, Sill, Fence Post and Ornamental.

Ideal Concrete Machinery Co., Ltd., London, Ont.
London Machinery Co., Ltd., London, Ont.

MOULDS, Rubber and Glass.

Armstrong Bros., Toronto, Ont.
Bawden Machine Co., Ltd., Toronto.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
Fletcher Mfg. Co., Ltd., Toronto.
Schofield-Holden Machine Co., Ltd., Toronto.

MOUNTINGS, Carriage.

Guelph Carriage Top Co., Guelph, Ont.
Kinzinger, Bruce & Co., Ltd., Niagara Falls, Ont.
Skinner Co., Ltd., The, Gananoque, Ont.

MOUNTINGS, Coffin and Casket.

Girard & Godin, Three Rivers, Que.
Globe Casket Co., The, London, Ont.
National Casket Co., Toronto.

MOWERS.

Bruce Agricultural Works, The, Teeswater, Ont.
Cossitt Co., Ltd., The, Brockville, Ont.
Dain Mfg. Co., Ltd., Welland, Ont.
Frost & Wood Co., Ltd., The, Smith's Falls, Ont.
Hamilton, Peter Co., Ltd., Peterborough, Ont.
International Harvester Co. of Canada, Ltd., Hamilton, Ont.
Massey-Harris Co., Ltd., Toronto.
Maxwell, David & Sons, St. Mary's, Ont.
Moody, The Matthew, & Sons Co., Terrebonne, Que.
Noxon Co., Ltd., The, Ingersoll, Ont.
Shantz, P. E., Preston, Ont.

MOWERS, Lawn.

Maxwell, David, & Sons, St. Mary's, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.

MUCILAGE.

Alpha Chemical Co., Ltd., The, Berlin, Ont.
Auld Mucilage Co., The, Montreal, Que.
Bull, John, Mfg. Co., Hamilton.
Domestic Specialty Co., Ltd., Hamilton, Ont:
Everett & Barron Co., Amherst, N.S.
Gilmour Bros. & Co., Montreal.
Masse Industrial Co., The, Windsor, Ont.
Reliance Ink Co., Ltd., Winnipeg.
Sultana, Limited, Montreal.
Underwood, John, & Co., Toronto.

MUDAR BARK, the root bark of Calotropis gigantea, used in India as a remedy for leprosy, &c., and also imported into Europe for medicinal purposes. The fibre is also used, that from the seeds being mixed with silk. The juice is mixed with caoutchouc, which it somewhat resembles.

MUFFLERS.

Avon Hosiery, Ltd., Stratford, Ont.
Gillies, A. J., Mfg., Co., Toronto.
Knit-to-Fit Mfg. Co., Montreal.
Monarch Knitting Co., Ltd., Dunnville, Ont.
Peters, J. Henry, Co., Toronto.
Reliance Knitting Co., Ltd., The, Toronto.
Scott Knitting Co., Toronto.

MUFFLES.

Montreal Fire Brick Works Co., Ltd., Montreal.

MUFFS AND STOLES, ETC.

Alexander, A. J., Montreal.
Allan, A. A. & Co., Ltd., Toronto.
Ansley-Dineen Hat & Fur Co., Ltd., Toronto.
Brandon Fur & Clothing Co., Brandon, Man.
Brenton, The Albert J., Co., Ltd., Winnipeg.
Brereton & Steward, Toronto.
Brodey, Draimin Fur Co., Toronto.
Coristine, Jas. & Co., Ltd., Montreal.
Eaton, The T. Co., Ltd., Toronto.
Fairweathers, Ltd., Toronto.
Freifield, L., & Co., Toronto.
Fried, Grills & Co., Toronto.
Gillespie Fur Co., Ltd., The, Toronto.
Gnaedinger, L., Son & Co., Montreal.
Holt, Renfrew & Co., Quebec, Que.
Jose, R., Toronto.
Kahnert, W., Toronto.
Magee's D., Sons, Ltd., St. John, N.B.
McComber & Cummings, Montreal, Que.
Orr, Wm., E. & Co., Toronto.
Sandham & Thurston, Toronto, Ont.
Sellers-Gough Fur Co., Toronto.
Thompson Mfg. Co., Ltd., Toronto.

MULBERRY.—The species most generally cultivated for its fruit is the black mulberry. The white mulberry of China is the species best adapted for feeding silkworms, and is cultivated for that purpose in the south of Europe. Its root is famed as a vermifuge. Some species, especially the red mulberry of America, yield a fine-grained and strong wood. The paper mulberry belongs to a different genus. It is extensively cultivated in Japan for the manufacture of paper, and in the South Sea Islands cloth is made of the bast.

MUM. (See BEER.)

MUNDIC, a name given in Cornwall to iron pyrites.

MUNGO.—Shreds of old woollen cloth used for the manufacture of shoddy cloth.

MUNJEET. See MADDER.)

MUNTZ'S METAL. (See BRASS.)

MUSCATEL.—Several strong and sweet white and red wines are made in France, Italy, and other countries from Muscatel grapes. In France the most noted are those of Lunel in the Pyrenees, the white Riversaltes, and the red Bagnol of Roussillon and Frontignac. The muscatels of Syracuse and Cagliari have also a good reputation, and the Lacryma Christi of Naples. **(See also RAISINS.)**

MUSCOVADO.—Ordinary unrefined moist cane sugar.

MUSHROOMS.—Several kinds are edible, the best flavoured being the common mushroom, the fairy-ring mushroom, and the orange-milk mushroom. Of the coarser kinds catsup is made. Mushrooms are cultivated, especially in France, in the catacombs of Paris and in caves. Besides Paris, Rheims and Amiens are the chief seats of the industry.

MUSK.—The musk of commerce is a secretion in a special gland of the male musk-deer, and is exported from China, Tonkin, and other countries. The musks of Tonkin and Nankin are the finest; that of India has an odour like civet, and is less esteemed, and the musk of Russia, called Cabardine, is the least valuable. Artificial musk is made from toluol and, like the natural, enters into the composition of a variety of perfumes. Other animals, as the beaver and civet, secrete a somewhat similar substance. **(See CASTOREUM and CIVET.)**

MUSK PLANTS.—One of the most important that give out an odour of musk is Hibiscus. The seeds, kiown also as ambrette or graines d'ambrette, are gathered in the East Indies, but the best come from Martinique. The root of an umbelliferous plant which grows in Turkestan and Persia, also supplies a substitute for musk.

MUSK RAT, an amphibious animal of a genus of the shrew family, called also desman. The larger of the two species is abundant from the Don to the Volga in Russia, and its skins, which exhale a musky dour, are an article of trade. It is also plentiful in the lakes and rivers of Canada.

MUSLIN, a fine cotton fabric, differing from gauze in being woven without any looping of the warp threads on the weft. It was formerly made only in India, where Dacca was famous for the fineness and beauty of its muslin, but now it is largely manufactured in Great Britain, France, Switzerland, and Germany, the United States and Canada.

MUSQUASH, sometimes called musk-rat and ondatra. A rodent of the mouse family, which lives in North America, especially in Canada. Large numbers of skins are exported for the manufacture of fur muffs, capes, &c.

MUSSELS.—The common mussel is eaten, and is in great demand by fishermen as bait. In France, Germany, Italy, and other countries the cultivation of mussels is a not unimportant industry.

MUSTARD.—White mustard is cultivated in England, Germany, and Holland, and black mustard grows in most countries of Europe, North Africa, the Far East, and America. Wild mustard or charlock, is seldom used except mixed with one of the other kinds. The condiment is made from the ground seeds, mixed with flour and various spices. The seeds of the black mustard yield an oil which is used in salads and for burning, and by distillation a pungent volatile oil, sometimes used in the preparation of mustard plasters. Ordinary mustard plasters are made of mustard flour from which the oil has been pressed out.

MUSTARD.

Canadian Spice Mill, The, Quebec, Que.
Clark, J. Sutton, Ltd., St. George, N.B.
Dalton Bros., Toronto.
Dunn, G. S., & Co., Hamilton.
Ewing, S. H. & Sons, Montreal.
Herron-LeBlanc, Ltd., Montreal.
Jonas, Henri, & Co., Montreal.
Litster Pure Food Co., Ltd., Toronto
Pure Gold Mfg. Co., Toronto.
Quebec Preserving Co., Quebec, Que.
Young-Winfield, Ltd., Hamilton.

MUSTARD (Prepared).

Lariviere & Frere, Montreal.
Lees', Limited, The, Simcoe, Ont.
MacLaren Imperial Cheese Co., Ltd., Toronto.

MUTTON. (See SHEEP.)

MYALL WOOD, the violet-scented wood growing in Australia, which is made into tobacco pipes and whip handles.

MYROBALANS, the fruit of various species of Terminalia, about the size of a nutmeg. T. belerica furnishes the greater part of the fruit exported from India, but the myrobalans of T. chebulica and T. citrina are also used by tanners, dyers, and ink manufacturers, and those of Emblica officinalis of the order Euphorbiaceæ.

MYRRH.—The gum resin which exudes from the bark of a tree which grows in Arabia, Somaliland, and the East, and is sent to Europe chiefly from Bombay in the form of tears or grains. It is used medicinally as a tonic and stimulant, in dentrifices, and as incense, particularly in the Greek Church.

MYRTLE WAX.—Wax obtained by boiling the seeds of Myrica cerifera and other species. **(See CANDLEBERRY.)**

N

NAILS.—Nails are cut out of iron plate by hand, the head being formed in the cutting or afterwards finished with a hammer. These are being rapidly superseded by machine-made nails cut out of cold metal. Nails are also made of Bessemer and Siemens-Martin steel and combined iron and steel. Tin-plate scrap also is used in America. Wire nails, invented in France, are very tenacious. Cast-iron nails are used only in garden work and for nailing laths to hold plaster. Brass also is cast into nails. There is an enormous variety in the sorts and sizes of nails. The terms "fourpenny," "sixpenny" nails denote that four or six pounds is the weight of 1,000. Brads are made so small that 1,000 weigh only 1½ oz. Birmingham and Dudley are the great centres of the industry in England.

NAIL SETS, Steel.

Decbul Tools, Ltd., Montreal.
Morrow, John, Screw & Nut Co., Ltd., Ingersoll, Ont.

NAILS, Boat.

Parmenter & Bulloch Co., Ltd., The, Gananoque, Ont.

NAILS, Canoe (Copper and Steel).

Dominion Tack & Nail Co., Ltd., Galt, Ont.
Parmenter & Bulloch Co., Ltd., The, Gananoque, Ont.

NAILS, Countersunk Clout.

Parmenter & Bulloch Co., Ltd., The, Gananoque, Ont.

NAILS, Cut, All Kinds.

Beaver Brass Manufacturing Co., Ltd., Toronto.
Cowan & Britton, Ltd., Gananoque, Ont.
Dominion Tack & Nail Co., Ltd., The, Galt, Ont.
Peck Rolling Mills, Ltd., The, Montreal.
Steel Co. of Canada, Ltd., Montreal.

NAILS, Galvanized.

Dominion Iron & Steel Co., Ltd., Sydney, N.S.

NAILS, Horseshoe.

Canadian Nail & Wire Co., St. John, N.B.
Capewell Horse Nail Co., Toronto.
Maritime Nail Co., Ltd., St. John, N.B.
Steel Co. of Canada, Ltd., Montreal, Que.

NAILS, Wire.

Alberta Nail & Wire Co., Ltd., Calgary, Alta.
Consolidated Hardware Mfg. Co., Ltd., Hamilton.
Dominion Iron & Steel Co., Ltd., Sydney, N.S.
Graham Nail Works, The, Toronto.
Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Laidlaw Bale-Tie Co., Ltd., Hamilton.
Maritime Nail Co., Ltd., St. John, N.B.
Morrisburg Tack Mfg. Co., Ltd., Morrisburg, Ont.
Morrison Steel & Wire Co., Ltd., Vancouver, B.C.
Northern Bolt & Screw Co., Ltd., Owen Sound, Ont.
Parmenter & Bulloch Co., Ltd., The, Gananoque, Ont.
Peck Rolling Mills Co., Ltd., Montreal.
Pender, James & Co., Ltd., St. John, N.B.
Robertson, P. L., Mfg. Co., Ltd., Milton, Ont.
Steel Co. of Canada, Ltd., Montreal.
Western Wire & Nail Co., Ltd., London, Ont.
Westminster Wire & Nail Co., New Westminster, B.C.

NAILS, Wire, Blued and Coated.

Dominion Iron & Steel Co., Ltd., Sydney, N.S.
Imperial Steel & Wire Co., Ltd., Collingwood, Ont.

NAILS, Wire, Fine and Cigar Box.

Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Morrisburg Tack Mfg. Co., Ltd., Morrisburg, Ont.
Interlake Tissue Mills, Ltd., Merritton, Ont.

NANKEEN, a durable kind of cotton cloth, originally made in China, with the buff-coloured fibre of a variety of Gossypium herbaceum. It has been imitated in Europe by dyed cottons, but now the term, when used at all, is applied to cloths that have no resemblance to the original Chinese article.

NAPHTHA, a name used in a loose and general sense to denote oils of various kinds, but now usually confined to the lighter forms of hydro carbon obtained by distillation from crude mineral oils, coal-tar, wood, &c. American petroleum yields 15 to 20 per cent. of naphtha, and Russia only 5 to 6 per cent. This naphtha is again separated into gasoline, benzine, and benzoline, which differ in their specific gravities ,the last being the heaviest. The shale of Scotland yields only 4 to 5 per cent. of naphtha. From coal-tar 5 to 20 per cent. is obtained according to the kind of coal; this naphtha is much heavier than that distilled from oil. Caoutchine is a naphtha derived from india-rubber. Napthas, formerly used sometimes as burning oils, are now chiefly employed as solvents, in extracting the perfumes of flowers, in the manufacture of india-rubber and gutta-percha goods, in the refining of paraffin wax, in mixing paints, etc. Out of doors these more dangerous oils are still used for illumination. Naphthaline, a solid hydro-carbon, obtained chiefly from coal-tar, is used in the albocarbon lamp to increase the illuminating power of gas. On the continent of Europe the term naphtha is commonly used to denote any burning oil. **(See also OILS.)**

NAPHTHA.

Crown Oil Refining Co., Ltd., Hamilton.
Dominion Tar & Chemical Co., Ltd., Montreal.

NAPKINS, Linen.

Dominion Linen Mfg. Co., The, Guelph, Ont.

NAPKINS, Paper.

NEAT'S-FOOT OIL, an oil obtained by boiling down the fat of cattle. It is used for softening leather and oiling clocks, when part of its stearine has been extracted.

NECKWEAR, Knitted and Crocheted, Men's and Women's.

Best Knit, Ltd., Brampton, Ont.
Gillies, A. J., Mfg. Co., Toronto.
Monarch Knitting Co., Ltd., The, Dunnville, Ont.
Neckwear & Fancy Goods Co., The, St. John, N.B.
Peters, J. Henry, Co., Toronto.

NECKWEAR, Men's.

Arrow Mfg. Co., Toronto.
Avon Hosiery, Ltd., Stratford, Ont.
Crescent Mfg. Co., Ltd., Montreal.
Currie, E. & S., Ltd., Toronto.
Eaton, The T., Co., Ltd., Toronto.
Niagara Neckwear Co., Ltd., Niagara Falls, Ont.
Peters, J. Henry, Co., Toronto.
Reid, A. T., Co., Ltd., Toronto.
Sward Neckwear Co., Ltd., The, Toronto, Ont.
Tooke Brothers, Ltd., Montreal.

NECKWEAR, Women's.

Arrow Mfg. Co., Toronto, Ont.
Daniel, F. C., & Co., Toronto, Ont.
Eaton, The T., Co., Ltd., Toronto.
Fairbairn, R. D., Co., Ltd., Toronto.
Fraid, Heillig Co., Montreal.
Finnie, A. Bruce, & Co., Montreal.
Flett, Lowndes & Co., Ltd., Toronto.
Holladay, M. A., Co., Ltd., Toronto.
Ladies' Wear, Ltd., Toronto.
Neckwear & Fancy Goods Co., The, St. John, N.B.

Peters, J. Henry, Co., Toronto.
Rea, A. E., & Co., Ltd., Toronto.
Reid, A. T. & Co., Ltd., Toronto.
S. M. Silk Waist Mfg. Montreal.

NECK YOKES.

Ackland, D., & Son, Ltd., Winnipeg, Man.
Canada Steel Goods Co., Ltd., Hamilton, Ont.
Canada Wheel Works, Ltd., Merritton, Ont.
Canadian Handle Manufacturing Co., Ltd., London, Ont.
Heard, John, & Co., St. Thomas, Ont.
McKillop, A., & Sons, Ltd., West Lorne, Ont.
Pink, Thomas Pembroke, Ont.

NEEDLES.—These articles are manufactured chiefly in England (Redditch and neighbourhood), Aix-la-Chapelle and Burtscheid, in Germany, and at Laigle (Orne), France. France, however, imports needles, and so do the United States of America, though needles are made in the north-eastern States. Besides sewing and darning needles, lace-working needles, knitting-needles, packing-needles, and upholstery needles are made. Needles for sewing-machines are of quite a different kind, having the eye near the point, and other peculiarities.

NEEDLES, Knitting Machine (Latch).

Corey Needle Co., Upper Bedford, Que.
Wheeler, Charles E., & Son, Paris, Ont.

NEGROHEAD.—A kind of manufactured tobacco. (See TOBACCO.)

NEROLI OIL. (See ORANGE.)

NERPRUN.—A French name for **Avignon berries.**

NETS, Blasting.

Gourock Ropework Export Co., Limited, Montreal, Que.

NETS, Cricket and Tennis.

Shurly & Derrett, Ltd., Toronto.

NETTING, Wire.

Greening, The B., Wire Co., Ltd., Hamilton.
Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Lamb, H. R., Fence Co., Ltd., London, Ont.
Lysaght, John, Ltd., Montreal, Que.
Munro, Steel & Wire Co., Ltd., Winnipeg.
Page Wire Fence Co., Ltd., Walkerville, Ont.
Pender, James & Co., Ltd., St. John, N.B.
Steel Co. of Canada, Ltd., Montreal, Que.

NEUFCHATEL, a cream cheese made at Neufchatel-en-Bray, in Normandy.

NEUTRAL OIL, or neutral lard. Lard separated from the animal fibre. It retains no animal taste or odour, and hence the name. It is an important ingredient of margarine.

NEWELS.

Anglin, S., & Company, Kingston, Ont.
Batts, Ltd., West Toronto, Ont.
Cushing Brothers, Co., Ltd., Calgary, Alta.
Davidson, James, Ottawa Ont.
Dempster, Estate of James, Halifax, N.S.
Georgian Bay Shook Mills, Ltd., Midland, Ont.
Gignac, J. H., Ltd., Quebec, Que.
Harrison, John & Sons, Co., Ltd., Owen Sound, Ont.
Kerr, J. & J. Co., Ltd., Petrolia, Ont.
Leduc & Fortin, Beauharnois, Que.
Lemon, Gonnason Co., Amherst, N.S.
Rhodes, Curry Co., Ltd., Amherst, N.S.
Rutherford, The, William, Sons Co., Ltd., Montreal, Que.
Sarassin, Napoleon, et Fils, Ltd., Montreal, Que.
Schurman, M. F., Co., Ltd., Summerside, P.E.I.

NEWSPAPERS, Ready Printed Sheets.

Canada Ready Print Co., The, Hamilton, Ont.
Central Press Agency, Ltd., Toronto, Ont.
Wilson Publishing Co., of Toronto, Ltd., Toronto, Ont.

NEW ZEALAND HEMP, or Flax. The fibre obtained from the long leaves of a lilaceous plant, which is twisted into ropes and twine, and is a rival of manila hemp. The prepared article is known as phormium.

NICARAGUA WOOD. (See BRAZIL WOOD.)

NICKEL.—A white malleable metal contained in several ores. One of the most plentiful is nickel arsenide or niccolite. Genthite and garnierite, hydrous silicates of nickel and magnesium, are also valuable ores, and are worked in New Caledonia. Millerite, nickel sulphide, is not often found in large quantities. The largest deposits are in the Sudbury district, Canada, where the metal occurs as pyrrhotite or iron sulphide. Norway also produces a few thousand tons of ore. Nickel enters into the composition of German silver, and into the small coinage of some European States and of the United States of America. Nickel steel is extensively used in the manufacture of armour plates, propeller and other shafts, and bicycles. Nickeloid is a nickel-plated sheet of zinc used in the manufacture of reflectors, refrigerator linings, &c., and an alloy of nickel, aluminium, and copper has been introduced. Goods plated with nickel do not tarnish so readily as silver. The monoxide is a green powder, and gives a brown soft color to china. The sulphate is sometimes prescribed as a medicine.

Canada produces practically the whole of the world's supply of this metal. The mines are situated in the Sudbury District of Ontario, where the ores are roasted and smelted and from whence the product is shipped in the form of a nickel copper matte. The production in 1913 was as follows:

	Short Tons.
Ore smelted	823,403
Matte produced	47,150
Nickel, contents of matte	24,838
Copper, contents of matte.. ..	12,938

Nickel contained in matte were shipped as follows:—

	Pounds.
to United States	44,224,119
To Great Britain	5,164,512
To other countries	70,386

The re-exports of nickel from the United States in the matte and as a refined product in 1913 was 29,173,088 pounds.

NICKEL PLATE WARE.

Davidson, The, Thomas, Mfg. Co., Ltd., Montreal, Que.
Garth Company, The, Montreal, Que.
McClary Mfg. Co., London, Ont.
Pearce, Henry, Montreal, Que.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Tallman Brass & Metal Co., Hamilton, Ont.
Westport Manufacturing & Plating Co., Ltd., The, Westport, Ont.

NICKEL.

Canadian Hanson & Van Winkle Co., Ltd., Toronto, Ont.

NIGER SEED.—The small black seed of Guizotia Abyssinica, from which an oil used for culinary purposes is extracted and exported to Europe.

NIGRINE, or Black Rutile, containing a large proportion of ilmenite (Ferrous titanate.) It is used for polishing metals. **(See TITANIUM.)**

NIGRITE, a composition of India-rubber and black wax distilled from ozokerite. Nigrite is used as an electrical insulator.

NIPPLES.

Bigley, The R., Mfg. Co., Ltd., Toronto, Ont.
Canadian Tube & Iron Co., Ltd., Montreal, Que.
Fittings, Ltd., Oshawa, Ont.
Page Hersey Iron, Tube & Lead Co., Ltd., Toronto, Ont.
Steel Co. of Canada, Ltd., Montreal, Que.

NIPPLES, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.

NIPPLES, Soldering.

Morrison, The James, Brass Mfg. Co., Ltd., Toronto, Ont.
Mueller, H., Mfg. Co., Ltd., Sarnia, Ont.

NITRATE.—This name is generally understood to mean nitrate of soda, a mineral found in several countries, but nowhere so abundant as in the deposits of Chile, where the impure nitrate, or caliche, covers immense areas in the desert tracts. Hence this substance is often called Chile saltpetre. It is a valuable manure, and is also employed in the manufacture of nitric acid and nitre in metal works, curing meat, &c. The production of nitrate is almost wholly confined to Chile, the output of which country in 1913 amounted to 2,586,975 metric tons. **(See FERTALIZERS.)**

In recent years an electrical process for extracting nitrogen from the atmosphere was discovered. The product is generally known as synthetic nitrogeneous fertilizers. The principal producing countries of these commodities in 1913, were:—

	Metric Tons.
Norway	100,098
Sweden, about	10,000

A little is also produced in France and Germany.

NITRE. (See SALTPETRE.)

NITRIC ACID, formerly called aqua fortis, is usually manufactured from nitrate of soda. It is one of the most important of acids, being used in the manufacture of several other acids, ammonia, picric acid, nitro-glycerine, and other explosives, in extrcting metals from their ores, in the refining of gold and silver, and in the production of nitrates of silver, mercury, lead, and copper.

NITRO-BENZOL. (See BENZENE.)

NITRO-GLYCERINE.—Glycerine is dissolved in equal parts of strong nitric and sulphuric acids, and then poured into water when the nitro-glycerine is precipitated. It is an explosive of great strength, its force being equal to that of eight times the same weight of gunpowder. It is very easily exploded by concussion, and cannot be transported with safety. Therefore it is used only when compounded with porous substances, as in gelignite, dynamite, &c.

NOILS, Wool.

Andrews, H. V., Toronto, Ont.

NOVELTIES, Advertising.

Benallack Litho. & Printing Co., Ltd., Montreal.
Ben Hur Mfg. Co., Ltd., Hamilton, Ont.
Bulman Bros., Ltd., Winnipeg, Man.
Canada Label & Webbing Co., Ltd., Toronto.
Canham, Victor, H., & Co., Guelph, Ont.
Colonial Weaving Co., Ltd., Peterborough, Ont.
Duncan Lithographing Co., Ltd., Hamilton.
General Leather Goods, Ltd., Toronto.
Garlach Barklow Co. of Canada, Ltd., The, Toronto, Ont.
Granger Freres, Montreal, Que.
Hough Lithographing Co., Ltd., Toronto, Ont.
Howell Lithographic Co., Ltd., Hamilton, Ont.
Kuhn Merrill, Ltd., Ottawa, Ont.
Laidlaw Litho Co., Ltd., Hamilton, Ont.
Lawson & Jones, Ltd., London, Ont.
London Printing & Litho. Co., Ltd., London, Ont.
Reid Press, Ltd., The, Hamilton, Ont.
Sale, Julian, Leather Goods Co., Ltd., Toronto.
Scott, Noble, Ltd., Toronto.
Smith, The David, Engraving & Lithographing Co., Toronto, Ont.
Standard Leather Goods, Ltd., Montreal.
Stone, Ltd., Toronto, Ont.
Talbot, A., & Co., London, Ont.

NOVELTIES AND SOUVENIRS, Leather.

General Leather Goods, Ltd., Toronto, Ont.
Sale, Julian, Leather Goods Co., Ltd., Toronto.
Standard Leather Goods, Ltd., Montreal.
Winnett & Wellinger, Ltd., Toronto, Ont.

NOVELTIES, Gold-Plated and Silver.

Wade Manuf. Co., Dundas, Ont.

NOVELTIES, Handpainted and Tinted.

Boyd-Brumell Co., Ltd., The, Toronto, Ont.
Gerlach, Barklow Co., of Canada, Ltd., The, Toronto, Ont.
Page and Shaw, Montreal.

NOVELTIES, Metal, (Decorated).

Macdonald Mfg. Co., Ltd., Toronto, Ont.
Monarch Electric Co., Ltd., St. Lambert, Que.
Page and Shaw, Montreal.
Westport Mfg. & Plating Co., Ltd., The, Westport, Ont.

NOVELTIES, Paper.

Gibb Paper Box Co., Hamilton, Ont.
Hamilton Paper Box Co., Hamilton, Ont.
Hand, T. W., Firework Co., Ltd., Hamilton.
Page and Shaw, Montreal.
Warwick Brothers & Rutter, Ltd., Toronto.

NOVELTIES, Wooden.

Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
Czerwinski Box Co., Ltd., Winnipeg, Man.
Harrison, John & Sons, Co., Ltd., Owen Sound, Ont.
Jackson, Jos., St. Charles de Mandeville, Que.
Murray & Gregory, Ltd., St. John, N.B.
Schultz Brothers Co., Ltd., The, Brantford.
Williams Mfg. Co., Ltd., The, Montreal.

NOYAU. (See **LIQUEURS.**)

NOZZLES, Hose.

Garth Co., The, Montreal, Que.
General Fire Equipment Co., Ltd., The, Toronto.
Morrison, The James, Brass Mfg. Co., Ltd., Toronto, Ont.
Wilson & Cousins, Toronto, Ont.

NUMBERS, Metal.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Patterson & Heward, Toronto, Ont.
Piper, The N. L., Railway Supply Co., Ltd., Toronto, Ont.

NUTMEGS, the kernel of certain species of Myristica. The true nutmegs are produced by M. fragrans, a species indigenous to the Moluccas, Banda Islands, and New Guinea. The tree has been introduced into British India, Java, and South America, and is cultivated successfully in Reunion. M. fatua, of the Banda Islands, yields a long nut of inferior quality, which, however, sometimes appears on the European market. Under pressure a fatty substance exudes from the nut, which by distillation yields an essential oil used in medicine. The pulp of the fruit is mace.

NUTRIA SKINS.—The name Nutria (otter) is given in South America to a rodent which inhabits the temperate parts of South America, and is hunted for its fur.

NUTS.—Common nuts are the fruit of Corylus Avellana, named after the town of Avellino in Lower Italy, whence they are still exported in large quantities. There are two varieties —the cob-nut and the longer filbert nut. Italy exports considerable quantities Piedmont sending its produce chiefly to Paris, while Spain supplies Great Britain, where the nuts are generally known as Barcelona nuts. The nuts yield an oil which dries readily, and is therefore used by painters; perfumers mix it with expensive fragrant oils. Constantinople nuts are frequently pressed for their oil, but have less flavour than the other kinds. (See also **WALNUT, COCO-NUT, BRAZIL NUT, CANDLE NUT, PECAN NUTS, &c.**)

NUTS.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Tube & Iron Co., Ltd., Montreal.
Hamilton Burr Mfg. Co., Ltd., Hamilton.
Lake Superior Corp., The, Sault Ste. Marie, Ont.
Northern Bolt & Screw Co., Ltd., Owen Sound, Ont.
Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Smith Foundry Co., Ltd., The, Fredericton, N.B.
Starr Mfg. Co., Ltd., Dartmouth, N.S.
Steel Co. of Canada, Ltd., Montreal, Que., Hamilton, Ont., and Toronto, Ont.

NUTS, Brass and Steel Finished.

Morrow, John, Screw & Nut Co., Ltd., Ingersoll, Ont.
National Acme Mfg. Co., Montreal, Que.
Steel Co. of Canada, Ltd., Montreal, Que., Hamilton, Ont., and Toronto, Ont.

NUTS, Case Hardened, Finished, Semi-Finished and Speical.

Morrow, John, Screw & Nut Co., Ltd., Ingersoll, Ont.
National Acme Mfg. Co., Montreal.

NUTS, Cold Punched.

Canadian Allis-Chalmers, Ltd., Toronto.
Morrow, John, Screw & Nut Co., Ltd., Ingersoll, Ont.

NUTS, Grip and Grip-holding.

Canada Grip Nut Co., Ltd., St. Johns, Que.

NUTS, Hot Pressed.

Starr Mfg. Co., Ltd., Dartmouth, N.S.

NUX VOMICA, the large round seeds of a plant, a native of the East Indies, whence they are exported. Strychnine, a tincture, and a tonic are prepared from them and prescribed as medicines. The bark used to be mixed with Angostura bark, and was therefore known as False Angostura bark.

O

OAK.—There are many varieties of oak, viz., the common oak, the Turkey oak, the white oak of Canada, the live oak of the United States, and the red oak of America. All these are esteemed for their timber. The barks of most species furnish tan, and a bitter extract, Quercine, is prepared from them. The valonia oak of Levant is particularly rich in tanin. Certain species of oak yield cork, others galls, others dye, and one specie manna.

The oak is extensively used in Canadian industries. Some of this is of domestic production, but very large quantities are imported from the United States. The imports into Ontario alone amount to about 36,000,000 ft. The cut of oak in Canada is steadily decreasing, and the price consequently going up. The most valuable specie is white oak; next in importance is red oak. A small quantity of scrub white oak, or blue oak, is used. White oak is strong, hard, heavy, tough, dense, and durable, and possesses a fine, even grain and texture. It is, however, rather difficult to season. Red oak is neither as strong, nor as durable as white oak, but it is more easily worked. Its density is much less than that of white oak, and its porous nature prevents its use for the better classes of tight cooperage. (See **WOOD.**)

OAKUM, the rought and tarry fibre obtained by unroving pieces of old rope. It is used in caulking the seams of ships.

OARS.

Ackland, Robert, Co., Winnipeg, Man.
Dean, Walter, Toronto, Ont.
Ditchburn, H., Boat Mfg. Co., Ltd., Gravenhurst, Ont.

English, The Wm., Canoe Co., Peterborough, Ont.
Gidley Boat Co., Ltd., Pentanguishene, Ont.
Lakefield Canoe Bldg. & Mfg. Co., Ltd., Lakefield, Ont.
Peterborough Canoe Co., Ltd., Peterborough, Ont.

OATS.—Oats thrive best in a damp and comparatively cool climate, and therefore are most extensively cultivated in the middle and northern latitudes. As, however, they require about three weeks longer than barley to arrive at maturity, they are not much cultivated north of 65 deg. Oats are the most important cereal in Scandinavia, Scotland, Canada, and New Zealand. In the more southern States of Europe, the United States of America, and Australia they are grown chiefly as food for animals, while in South America they are grown sparingly in the Argentine Republic and at great elevations in the Andes. There are several kinds, which, however, are probably merely varieties of the common oat. The chief are the Hungarian or Tartar oat, the naked oat, the Chinese and the short.

The worlds production of oats in 1914 amounted to 4,015,068,000 bushels. The principal producing countries were as follows:—

United States	1,141,060,000
Russia	913,933,000
Germany	625,884,000
France	312,942,000
Canada	311,426,000
Austria-Hungary	250,241,000
United Kingdom	181,859,000
Sweden	54,873,000
Belgium	46,816,000
Denmark	43,633,000
Spain	28,775,000
Italy	25,249,000
Romania	22,059,000
Holland	18,784,000
Bulgaria	12,968,000
Norway	9,835,000

OATMEAL AND ROLLED OATS.

Western Canada Flour Mills, Edmonton So., Alta.
Robin Hood Mills, Ltd., Moose Jaw, Sask.
Quaker Oats Co., Saskatoon, Sask.
Verigen Milling Co., Verigen, Sask.
Soo Line Mills, Ltd., Weyburn, Sask.
Brackman-Kerr Milling Co., New Westminster, B.C.
Branckman-Kerr Milling Co., Victoria, B.C.
Western Canada Flour Mills, Brandon, Man.
Metcalf Milling Co., Ltd., Portage la Prairie, Man.
Ogilvie Flour Mills, Ltd., Winnipeg, Man.
James W. Macdonald, Caledonia, N.S.
Hugh Chisholm, Long Point, N.S.
William Vinter, Sylvan Valley, N.S.
John R. Ross, West Branch River, St. John, N.B.
Arva Roller Mills, Arva, Ont.
Archibald Cereal Co., Beachville, Ont.
Hayne Milling Co., Brigden, Ont.
T. H. Taylor & Co., Ltd., Chatham, Ont.
Rob Roy Cereal Mills, Ltd., Durham, Ont.
Canadian Cereal & Flour Mills, Ltd., Fergus, Ont.
James Dunlop Co., Ltd., Hamilton, Ont.
Canadian Cereal & Flour Mills, Ltd., London, Ont.
Lucan Milling Co., Lucan, Ont.
R. A. Thompson, Lynden, Ont.
J. Wright & Sons, Owen Sound, Ont.
Quaker Oats Co., Peterboro, Ont.
The Milford Mills, Picton, Ont.
Parkinson Cereal Co., Thornbury, Ont.
Canadian Cereal Flour Mills, Ltd., Tillsonburg, Ont.
Chisholm Milling Co., Toronto, Ont.
James Cullen, Woodstock, Ont.
Thomas G. Hemphill, Wroxeter, Ont.
Peter McArthur & Son, Dewitteville, Que.
Ogilvie Flour Mills, Ltd., Montreal, Que.

OCHRE, oxide of iron mixed with lime and clay in varying proportions, so that the colour is a lighter or darker yellowish brown. Burning makes the colour red, and the earth is then known, according to the tint, as light red, Indian red, &c. Sienna earth acquires by burning a rich chestnut colour. Umber is an ochre containing manganese, of which the finest quality is obtained from Cyprus. The earths are used in the preparation of paints, both oil and water colours, and are sometimes applied in the form of powder—to colour chamois leather, &c. Many ochres are also produced artificially.

OILCAKE, the refuse of oil seeds, such as linseed, rape-seed, cotton-seed, coco-nut seeds, sunflower seeds, &c., after the oil has been pressed out. It serves as fodder for cattle. The chief exporting country is the United States, which sends out fully 735,000 tons, considerably more than half being cotton-seed. Russia exports about 279,000 tons of linseed, hemp, sunflower, colza, and rape oilcake. Egypt exports about 41,000 tons of cotton, seed cake, and China 260,000 tons of bean-cake. A small quantity made from linseed is produced in Canada.

OILS.—Oils are obtained from the animal, vegetable, and mineral kingdoms, and are divided into two groups—fixed oils, which at a high temperature undergo decomposition, and essential or volatile oils, on which the odoriferous properties of plants depend, and which are not changed by distillation. Animal oils include butter and lard, tallow, horse-grease, neat's-foot oil, neutral lard, and oleo oil; also the oils of whales, seals, and fish, such as cod, shark, porpoise, menhaden, pilchard, herring, sardine, and tunny. The oil of birds is used only to a small extent. Of vegetable oils, which are very numerous, the following are of most importance—Cotton-seed, linseed, palm, colza or rape, olive, poppy, ground-nut, sesamum, castor, soy, maize, walnut. Bassia, nutmeg, carapa, carnauba, and cocoa yield a thick oily substance approaching butter in consistency. All the above oils are described under separate headings, as well as numerous essential oils used chiefly as perfumes. Mineral oils are treated as under **PETROLEUM, PARAFFIN, NAPHTHA,** &c

OIL, Automobile.

British American Oil Co., Ltd., Toronto, Ont.
Empire Oil Company, Montreal.
Metropolitan Oil Co., Toronto, Ont.

OIL, Cooking and Salad.

Fairbank, The N. K., Co., Ltd., Montreal.

OIL, Corn.

Canada Starch Co., Ltd., The, Montreal, Que.
St. Lawrence Starch Co., Ltd., Port Credit, Ont.

OIL, Creosote.

British Columbia Refining Co., Ltd., Vancouver, B.C.
Carbon Oil Works, Ltd., Winnipeg, Man.
Dominion Tar & Ammonia Co., Ltd., Hamilton.
Dominion Tar & Chemical Co., Ltd., Montreal, Que.
Paterson Mfg. Co., Ltd., Toronto, Ont. and Montreal, Que.

OIL, Fish.

Fruing, Wm., & Co., Ltd., Grand Greve, Que.
Leonard Bros., Montreal, Que.
Maritime Fish Corporation, Ltd., Montreal.
Marquis, F. Canac, Quebec, Que.
Whitman, Arthur W., Halifax, N.S.

OIL, Floor (Stainless).

British American Oil Co., Ltd., Toronto.
Carbon Oil Works, Ltd., Winnipeg Man.
Commercial Oil Co., Ltd., Hamilton, Ont .
Crescent Oil Co., The, Hamilton, Ont.

OIL, Fuel, Petroleum. (See Petroleum).

OIL, Harness.

Alpha Chemical Co., Ltd., The, Berlin, Ont.
Carbon Oil Works, Ltd., The, Winnipeg.
Commercial Oil Co., Ltd., Hamilton, Ont.

OIL, Lard.

Crescent Oil Co., The, Hamilton, Ont.
Freeman, The W. A., Co., Ltd., Hamilton.
Morton, David, & Sons, Ltd., Hamilton, Ont.

OIL, Linseed.

Alberta Linseed Oil Mills, Ltd., Medicine Hat, Alta.
British America Paint Co., The, Victoria, B.C.
Canada Linseed Oil Mills, Ltd., Montreal, Que.
Canada Paint Co., Ltd., The, Montreal, Que., and Winnipeg, Man.
Carbon Oil Works, Ltd., Winnipeg, Man.
Crescent Oil Co., The, Hamilton, Ont.
Dominion Linseed Oil Co., Ltd., Baden, Ont., and Montreal, Que.
Manitoba Linseed Oil Mills, Ltd., Winnipeg.
McArthur, Irwin, Ltd., Montreal, Que.
Oriental Oil & Paint Co., Ltd., St. Basile, Portneuf, Que.
Sherwin-Williams Co. of Canada, Ltd., Montreal.

OIL, Lubricating

Alpha Chemical Co., Ltd., The, Berlin, Ont.
Beaver Oil Co., Montreal, Que.
British-American Oil Co., Ltd., Toronto, Ont.
British Columbia Refining Co., Port Moody, B.C.
British Columbia Refining Co., Ltd., Vancouver, B.C.
Campbell Lubricating Co., Hamilton, Ont.
Canadian Economic Lubricant Co., Ltd., Montreal, Que.
Canadian Oil Companies, Ltd., Toronto, Ont.
Commercial Oil Companies, Ltd., Toronto, Ont.
Commercial Oil Co., Ltd., Hamilton, Ont.
Corey Bloss P., Petrolia, Ont.
Crescent Oil Co., Hamilton, Ont.
Crown Oil Refining Co., Ltd., Hamilton, Ont.
Dominion Oil Co., Ltd., Hamilton, Ont.
Electric Boiler Compound Co., Ltd., Guelph, Ont.
Empire Refining Co., Ltd., The, Wallaceburg, Ont.
Empire Oil Company, Montreal.
Galens Signal Oil Co., Toronto, Ont.
Hugman, A. W., Ltd., Montreal, Que.
Imperial Oil Co., Ltd., Sarnia, Ont., Toronto, Ont., Montreal, Que.,
McCall Bros. & Co., Toronto, Ont.
Metropolitan Oil Co., Toronto, Ont.
Ontario Lubricating Co., Ltd., The, Hamilton, Ont.
Sidney Rubber Roofing Co., Sidney, B.C.
Sovereign Soaps & Chemicals, Ltd., Toronto,
Thorntons, Ltd., Brantford, Ont.

OIL, Neatsfoot.

Alpha Chemical Co., Ltd., The, Berlin, Ont.
Canadian Economic Lubricant Co., Ltd., Montreal.
Dominion Oil Co., Ltd., Hamilton, Ont.
Fox, T. M., Montreal, Que.
Freeman, The, W. A., Co., Ltd., Hamilton.
Harris, W., & Co., Toronto.
Lawrason, S. F., & Co., London, Ont.

OIL, Oleo.

Harris Abattoir Co., Ltd., The, Toronto, Ont.

OIL, Refined Coal or Illuminating.

British American Oil Co., Ltd., Toronto.
Canadian Oil Cos., Ltd., Toronto and Winnipeg.
Canadian Oil Companies, Ltd., Toronto, Ont., and Winnipeg, Man.
Corey, Bloss P., Petrolia, Ont.
Dominion Oil Co., Ltd., Hamilton, Ont.
Empire Oil Company, Montreal.
Empire Refining Co., Ltd., The, Wallaceburg, Ont.
Fairbank Co., Petrolia, Ont.
Galena Signal Oil Co., Toronto, Ont.
Imperial Oil Co., Ltd., Sarnia, Ont., Toronto, Ont., and Montreal, Que.
McColl Bros. & Co., Toronto, Ont.

OIL, Roadbed and Road.

British American Oil Co., Ltd., Toronto.
British Columbia Refining Co., Ltd., Vancouver, B. C.

OILCAKE, Linseed.

Alberta Linseed Oil Mills, Ltd., Medicine Hat, Alta.
Canada Linseed Oil Mills, Ltd., Montreal.
Canada Paint Co., Ltd., Montreal, and Winnipeg, Man.
Dominion Linseed Oil Co., Ltd., Montreal, Que., and Baden, Ont.

OILCLOTH, Floor, Table, Stair, Carriage and Enameled.

Dominion Oil Cloth Co., Ltd., Montreal, Que.

OILERS, Machine.

Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Wright, E. T., & Co., Hamilton, Ont.

OIL CUPS.

Canadian Detroit Lubricator Co., Ltd., Walkerville, Ont.
Canadian Winkley Co., Ltd., Windsor, Ont.
Hamilton Brass Mfg. Co., Ltd., Hamilton, Ont.
Mitchell, The Robt., Co., Ltd., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Penberthy Injector Co., Ltd., Windsor, Ont.

OIL WELL SUPPLIES.

Kerr, J. & J., Co., Ltd., Petrolia, Ont.
Oil Well Supply Co., Ltd., Petrolia, Ont.

OILS, ESSENTIAL.

Bush, W. J., & Co., (Canada), Ltd., Montreal.
Hutchinson & Peterson, Toronto, Ont.
Robin & Co., Montreal, Que.
Robinson Mfg. Co., Toronto, Ont.
Stuart Bros., Niagara Falls, Ont.
Wingate Chemical Co., Ltd., Montreal, Que.

OKRA, the seeds of Hibiscus, used to thicken soup. The plant grows in the East and West Indies, Africa, and the south of France. The stems yield a fibre.

OLEO OIL, an oil obtained by melting and pressing the fat of cattle so as to separate it from the fibre and stearin. It is one of the chief ingredients of margarine. Oil made from sheep fat cannot be neutralized, that is, entirely freed from the odour and flavour of the animal, and therefore makes an inferior margarine.

OLIBANUM. (See FRANKINCENSE.)

OLIVE, a small tree which is cultivated in Mediterranean countries and the East, and has been introduced into America and Australia. The European olive is found in two chief varieties, that grown in Spain having larger fruits. The fruits are eaten fresh, dried, or, more commonly, preserved in brine, and the latter kind are exported. But the most important product is the oil which is pressed from the fruit, of which large quantities are exported from Spain, Italy, Greece, the Levant and Algeria. The wood is beautiful in colour and grain, and takes a high polish. Some varieties of Olive have a very hard wood, and are called ironwood in the countries where they grow. Italy produces about 68 million gallons of olive oil, and Spain 46 millions; Greece exports nearly 1½ millions on an average.

ONIONS.—This vegetable gives rise to a consierable trade between European countries, North Africa, the Canaries, &c. In the warmer countries the quantity of acrid volatile oil the root contains, decreases and the milder kinds are produced, known as Spanish onions.

OPAL, a form of silica, which, when translucent and displaying a variety of colours, is sold as a precious stone. The best stones are obtained in Northern Hungary, and they are also found in Mexico, Colorado, New South Wales, and Queensland.

OPTICAL MATERIALS.

Dominion Optical Mfg. Co., Ltd., Montreal, Que.
Zock, J. J. & Co., Ltd., Toronto, Ont.

OPIUM, the inspissated juice of a poppy. The plant is largely grown in India, Persia, Asia Minor, and, for local consumption, in China. Indian opium for export is grown round Patna and Bernares and on the fertile tableland of Central India. Chinese opium is very poor in morphine, the most important alkaloid. Morphine is more rapid in its effects, and is used for hypodermic injection.

OPOPONAX, a gum resin, occasionally exported from Persia. The perfume, called Opoponax, is derived from it.

OPOSSUM.—Large quantities of the skins of Phalanga vulpina are exported from Australia, and a smaller number of the more valuable skins of the American opossum, Didelphys Virginiana, are sold annually.

ORANGES which enter into commerce in large quantities, grow in both the north and south hemispheres. Mandarin oranges of which the tangerine is a variety, are grown chiefly in Sicily, Spain and Jamaica. The bitter orange is found in the Mediterranean countries and in America. The leaves of the orange yield an essential known as "essence de petit grain," and the flowers a still more fragrant essence called oil of Neroli. Small unripe oranges are used in making curacoa, and rosoglio is made in Italy from Mandarin oranges. Marmalade, which is a jam made from oranges, is a considerable article of commerce. The importations of oranges into Canada in 1914 amounted to $3,360,329.

ORCHELLA, the lichens used by dyers. They are exported in the form of paste (see **ARCHIL**) from the Canaries, Cape Verd Islands, Angola, Madagascar, Mozambique, California, and South America. Indian orchella grows on the trunks of mangroves. Other kinds of lichen are collected for dyeing in the inland parts of France, Norway, and Sweden; they are not so rich in colouring matter as the sea lichens.

ORES.. (See Gold, Silver, Copper, Iron, Etc.)

ORGANS, Parlor, Lodge, Church and School.

Bell Piano & Organ Co., Ltd., Guelph, Ont.
Canadian Pipe Organ Co., Ltd., St. Hyacinthe, Que.
Doherty, W., Piano & Organ Co., Ltd., Clinton, Ont.
Dominion Organ & Piano Co., Ltd., The, Bowmanville, Ont.
Goderich Organ Co., Ltd., Goderich, Ont.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
Lye, Edward, & Sons, Toronto, Ont.
Sherlock-Manning Piano & Organ Co. Ltd., London, Ont.
Thomas Organ & Piano Co., Woodstock, Ont.

ORIGANUM OIL.—The name strictly denotes oil exported from Turkey. A cheap origanum of marjoram, but under this name thyme oil is oil is composed of turpentine, lavender, rosemary, and thyme oil.

ORNAMENTAL CONCRETE WORK.

Medicine Hat Concrete Products Co., Ltd., Medicine Hat, Alta.

OVENS, Enameling.

Brantford Oven & Rack Co., Ltd., Brantford, Ont.

ORPIMENT, a trisulphide of arsenic, of a golden yellow colour, whence its name, which signifies "gold pigment." It is used as a cheap pigment, and is often called King's Yellow.

ORRIS ROOT, probably a corruption of Iris root. The root stocks are exported from Florence and Mogador, and also from the Levant. On drying it acquires an odour of violets, and is frequently sold as violet root. It is chiefly used in perfumery, and a tincture made from it is sold as essence of violets.

ORSIDEW, a name for Dutch metal.

ORTOLAN, a kind of bunting very common in Central and Southern Europe, and much prized for its delicate flavour. Large numbers are netted and fattened for the table.

OSIER, the popular name for those kinds of willow which are used in basket-work. The common osier is used for rough work, but the finer kinds of basket are made from varieties produced by cultivation, such as the fine basket osier, the green-leaved osier, Spanish Rod and the golden osier. Osiers are cultivated in Great Britain, Holland, Belgium, and France.

OSMIUM, a rare metal occurring in the mineral osmiridium in platinum ores. It is now used in the manufacture of the Auer and Nernst incandescent electric lights. **(See also IRIDIUM.)**

OSNABURG, a coarse linen fabric named after the town of Osnabruck in the Prussian province of Hanover.

OSTRICH FEATHERS.—The ostrich is confined to Africa, Arabia, and Syria. Quantities of feathers are brought from the Western Sudan, and feathers of wild birds are the best. About three-quarters of the feathers brought to market are, however, obtained from domesticated birds. In this industry Cape Colony still retains the first place, though ostrich-farming has been introduced into Algiers, Australia, Uruguay, and California. Feathers of the American rhea or nandu are also brought to market and commonly sold as "vulture" feathers.

OTTER.—The land otter is widely distributed, and is hunted for its fur. Large numbers of skins are exported from North America. The sea-otter is a large animal, sometimes weighing 90 lbs. It frequents the North Pacific, but, possessing a very valuable fur, has been killed in large numbers and is becoming very scarce.

OTTO. (See **ATTAR OF ROSES.**)

OUNCE.—The jaguar is found all over South America except in the extreme south, and in Texas and California. Its skin, covered with dark rings and much resembling that of the leopard, is used for hearthrugs, &c.

OVENS, Gas.

Brantford Oven & Rack Co., Ltd., Brantford, Ont.

OVERALLS.

Acme Glove Works, Ltd., Montreal, Que.
British Mfg. Co., Montreal, Que.
Canadian Converters Co., Ltd., Montreal. Que.
Carhartt, Hamilton, Manufacturer, Ltd., Toronto, Ont.
Clayton & Sons, Halifax, N.S.
Creaser, J. F., Co., Ltd., LaHave, N.S.
Fregeau, S. T., Rock Island, Que.
Great Western Garment Co., Ltd., The, Edmonton, Alta.
Goodhue, J. B., Rock Island, Que.
Henderson Mfg. Co., Winnipeg, Man.
Kitchen Overall & Shirt Co., Ltd., Brantford, Ont.
Levy, H. & Sons, Ltd., Montreal, Que.
Louiseville Shirt & Overall Co., Montreal, Que.
MacKenzie, Ltd., Ottawa, Ont.
Monarch Overall Mfg. Co., Ltd., Winnipeg.
Monarch Shirt Co., The, Rock Island, Que.
Montreal Shirt Overall Co., Ltd., Montreal.
New Brunswick Overall Mfg. Co., St. John, N.B.
Northern Shirt Co., Ltd., Winnipeg, Man.
Peabody's Sales Corporation, Ltd., Walkerville, Ont.
Peerless Overall Co., Rock Island, Que.
Peters, H. S., Welland, Ont.
Premier Mfg. Co., Toronto, Ont.
Popular Shirt Co., Sorel, Que.
Rock Island Overall Co., Rock Island, Que.
Rubin Bros., Montreal, Que.
Scott-Knitting Co., Toronto, Ont.
Smart-Woods, Ltd., Ottawa, Ont.
Snag Proof Overall Co., Beebe, Que.
Sparks Bros., Ltd., Ottawa, Ont.
Standard Mfg. Co., The, Rock Island, Que.
Stag Pant & Overall Co., The, Montreal, Que.
Stobart Sons & Co., Ltd., Winnipeg, Man.
St. Henry Overall Mfg. Co., The, Montreal, Que.
St. Laurent Garment Co., Montreal, Que.
Telford Bros., Garment Co., Rock Island, Que.
Turner, Beeton & Co., Ltd., Victoria, B.C.
Union Overall Co., Winnipeg, Man.
Union Overall Mfg. Co. of Canada, Montreal .
Unity Mfg. Co., The, Toronto, Ont.
Walker Pant & Shirt Co., Walkerville, Ont.
Warwick Overall Co., The, Warwick, Que.
Western King Mfg. Co., Ltd., Winnipeg, Man.
Western Shirt & Overall Mfg. Co., Winnipeg, Man.
Wilkins, Robt. C., Co., Ltd., Farnham, Que.
Windsor Overall Co., Ltd., Windsor, Ont.

OVERSHOES (Rubber).

Gutta Percha & Rubber, Ltd., Toronto, Ont.

OXALIC ACID, an organic acid which is widely distributed in the vegetable kingdom, usually as a salt of lime, and is most commonly obtained by the oxidation of starch or sugar by nitric acid. It occurs in colourless transparent crystals, and is employed in cotton-printing, bleaching straw, and in testing certain chemicals. Oxalate of ammonia is a recognized test for lime, and the binoxalate of potash is the so-called salt of lemons used for removing ink-stains.

OXIDES, Cotton.

Canadian Cottons, Ltd., Montreal, Que.

OXIDES, Cobalt and Nickel.

Coniagas Reduction Co., Ltd., St. Catharines, Ont.
Deloro Mining & Reduction Co., Ltd., Deloro, Ont.

OXIDES. (See other metals.)

OXYGEN.

Compressed Gas Co., Ltd., Vancouver, B.C.
L'Air Liquide Society, Montreal, Que.

OYSTERS.—The common oyster is found in Europe as far north as 65 deg. N. latitude, and is taken off the shores of England and Norway, Schleswig, Brittany, and the Bay of Biscay. In many countries the spat is transferred to specially prepared beds. Of these cultivated oysters the most prized are the Whitstable "natives," and the oysters of Marennes at the mouth of the Seudre in France. The oysters of Cancale, in Brittany, also fetch a high price, and large quantities are cultivated at Arcachon and Ostend. Among the finest varieties are those off the coasts of the Maritime Provinces of Canada. The American oyster is extensively cultivated in

Long Island Sound and Chesapeake Bay. In Australia there are two chief kinds,. They are cultivated especially in Tasmania and Queensland. The cultivated oyster or native is distinguished by its thin shell and large proportion of meat, Whitstables often yielding one-fourth of their weight, whereas the meat of deep-sea oysters is only one-tenth of the total weight.

OZOKERITE, a hydrocarbon of an elastic texture, and generally brownish, yellowish, or greenish in colour. It is found in Lower Austria and Galicia, near Newcastle in England, in Transcaucasia, Persia, Egypt, Algeria, Canada, and Mexico, but in paying quantities only in Galicia. When washed and melted into cakes it is known as ceresine, and is used for making candles, paraffin, and for all purposes to which beeswax can be applied. The output is small, about 2,700 tons.

P

PACKFONG.—A Chinese alloy containing copper ,nickel, zinc, and 2 per cent. by weight of silver.

PACKING, Asbestos.

Asbestos Mfg. Co., Ltd., The, Montreal, Que.
Canadian Asbestos Co., Montreal, Que.
Canadian H. W. Johns-Manville Co., Ltd., The, Toronto, Ont.
Canadian Gasket Co., Bridgeburg, Ont.
Eureka Mineral Wool & Asbestos Co., Toronto.
Hamilton Engine Packing Co., Hamilton.
Railway Asbestos Packing Co., Ltd., Sherbrooke, Que.

PACKING, Asbestos, Rubberproofed.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.

PACKING, Rubber, Sheet and Ring.

Amber Packing Co., Ltd., Montreal.
Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Cannock Supply Co., Ltd., Montreal.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
Goodyear Tire & Rubber Co., of Canada, Ltd., Toronto, Ont.
Gutta Percha & Rubber, Ltd., Toronto, Ont.

PACKINGS, Engine, Hngh and Low Pressure, Steam, Hydraulic, Ammonia, Etc.

Amber Packing Co., Ltd., Montreal.
Canadian Gasket Co., Bridgeburg, Ont.
Cannock Supply Co., Ltd., Montreal.
Dominion Metal Co., The, Sherbrooke, Que.
Electric Boiler Compound Co., Ltd., Guelph, Ont.
Eureka Mineral Wool & Asbestos Co., Toronto.
Garlock Packing Co., The, Hamilton.
Hamilton Engine Packing Co., Hamilton.
Jenkins Bros., Ltd., Montreal, Que.
Steel Mill Packing Co., The, Windsor, Ont.
Taylor & Arnold, Ltd., Montreal.
Wing, J. T., & Co., Ltd., Windsor, Ont.

PADDING, Coat.

Canada Hair Cloth Co., St. Catharines, Ont.
Montreal Quilting Co., Ltd., Montreal, Que.

PADDING, Cotton.

Dominion Wadding Co., Ltd., Montreal, Que...
National Mattress Felt & Batting Co., The, Toronto, Ont.

PADDING, Stair.

Lazier Paper Mills, Ltd., Belleville, Ont.
Montreal Quilting Co., Ltd., Montreal, Que.

PADDING, Table, Cradle and Crib.

Montreal Quilting Co., Ltd., Montreal, Que.

PADDLES, Canoe.

Canadian Canoe Co., Ltd., The, Peterborough, Ont.
Dean, Walter, Toronto, Ont.
Ditchburn, H., Boat Mfg. Co., Ltd., Gravenhurst, Ont.
English, The Wm., Canoe Co., Peterboro, Ont.
Gidley Boat Co., Ltd., Penetanguishene, Ont.
Lakefield Canoe Bldg. & Mfg. Co., Ltd., Lakefield, Ont.
Ross, Henry, Indian Lorette, Que.

PADDY. (See **RICE.**)

PAKU, KIDANG, the hairs of south Asiatic tree-ferns, sold for stuffing pillos, &c.

PALISANDER WOOD, a dark brown wood with a violet tinge, much esteemed for cabinet work. There are several kinds. The best quality comes from Brazil, especially Rio de Janeiro. Less valuable palisander is supplied by India and Madagascar.

PALLADIUM, a metal closely resembling platinum in colour and ductility. It is found associated with platinum and gold in the Ural mountains and Brazil, the auriferous sands of the latter country being the chief sources of supply. Being white and hard, and resisting the oxidising action of air, it is well suited for the scales of scientific instruments and for dentistry, but its scarcity limits its use.

PALMA CHRISTI. (See **CASTOR OIL.**

PADLOCKS, Steel and Brass. See also Locks,

Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Springer Lock Co., Ltd., Belleville, Ont.

PADS, Horseshoe and Stamping.

Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
Walpole Rubber Co., Ltd., Montreal, Que.

PADS, Sweat.

Adams Bros. Harness Mfg. Co., Ltd., Toronto.
American Pad & Textile Co., The, Chatham, Ont.
Burlington Windsor Blanket Co., Ltd., Windsor, Ont.
Trees, Samuel, & Co., Ltd., Toronto.

PAILS, Fibre.

Eddy, The E. B., Co., Ltd., Hull, Que.
Thomas Bros., Ltd., St. Thomas, Ont.

PAILS, Galvanized.

Aubry, A., & Fils, Montreal, Que.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.

PAILS, Paper (Ice Cream and Oyster.)

Canada Carton Co., Ltd., The, London, Ont.
Dominion Paper Box Co., Ltd., The, Toronto,
Kilgour Bros., Toronto, Ont.

PAILS, Sap.

Grimm Mfg. Co., Ltd., The, Montreal, Que.
Wyatt Can Works, The, Sutton, Que.

PAILS, Tin (Lard, Paint, Etc.)

American Can Co., Montreal, Que.
Aubry, A., & Fils, Montreal, Que.
Macdonald Mfg. Co., Ltd., Toronto, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.

PAILS. Wooden (Lard, Candy, Etc.)

Beck, The C. Mfg. Co., Ltd., Penetanguishene, Ont.
Cane, Wm., & Sons Co., Ltd., The, Newmarket, Ont.
Disraeli Box Co., Inc., Disraeli, Que.
Keenan Woodenware Mfg. Co., Ltd., Owen Sound Ont.
Moore, John E., St. John, N.B.
Thomas Bros.. Ltd., St. Thomas, Ont.

PAINTS, Anti-Corrosive and Damp-Roofing. See also Damp Coursing Materials,

Canadian Mineral Rubber Co., Ltd., Winnipeg.
Carbon Oil Works, Ltd., The, Winnipeg, Man.
Dominion Paint Works, Ltd. Walkerville, Ont.
Lowe Bros., Ltd., Toronto, Ont.
Paterson Mfg. Co., Ltd., Montreal, Que., and Toronto, Ont.
Pinchin, Johnson & Co. (Canada), Ltd., Toronto. real. Que.
R. I. W. Damp Resisting Paint Co., The, Toronto, Ont.
Sherwin-Williams Co. of Canada, Ltd., Mont-
Sidney Rubber Roofing Co., Sidney, B.C.
Standard Paint Co. of Canada, Ltd., Montreal.

PAINT, Asphalt.

British Columbia Refining Co., Ltd., Vancouver, B.C.
Reed, Geo. W., & Co., Ltd., Montreal, Que.
Sidney Rubber Roofing Co., Sidney, B.C.

PAINT, Bridge, Girder, Etc.

Brandram-Henderson, Ltd., Halifax, N.S.
Canada Paint Co., Ltd., The, Montreal, Que., and Winnipeg, Man.
Canadian Mineral Rubber Co., Ltd., Winnipeg.
Crescent Oil Co., The, Hamilton, Ont.
Dominion Paint Works, Ltd., Walkerville, Ont.
Lowe Bros., Ltd., Toronto, Ont.
Muirhead, A., Co., Ltd., Toronto, Ont.
Pinchin, Johnson & Co. (Canada), Ltd., Toronto.
R. I. W. Damp Resisting Paint Co., The, Toronto, Ont.
Sherwin-Williams Co. of Canada, Ltd., Montreal. Que.
Standard Paint Co. of Canada, Ltd., Montreal.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
Staneland Co., Ltd., The, Victoria, B.C.

PAINT, Carbon.

Commercial Oil Co., Ltd., Hamilton, Ont.
Dominion Paint Works, Ltd., Walkerville, Ont.
Pinchin, Johnson & Co. (Canada), Ltd., Toronto.
Staneland Co., Ltd., The, Victoria, B.C.

PAINT, Copper.

Brandram-Henderson, Ltd., Halifax, N.S., and Montreal, Que
British America Paint Co., The, Victoria, B.C.
Moore, Benjamin, & Co., Ltd., Toronto, Ont.
Pinchin, Johnson & Co. (Canada), Ltd., Toronto.

PAINT, Gold and Aluminum.

Brandram-Henderson, Ltd., Halifax, N.S., and Montreal, Que.
Canadian Bronze Powder Works, Montreal.
Domestic Specialty Co., Ltd., Hamilton, Ont.
Imperial Varnish & Color Co., Ltd., Toronto.
Moore, Benjamin, & Co., Ltd., Toronto, Ont.
Pinchin, Johnson & Co. (Canada), Ltd., Toronto.
Ramsay, A., & Son Co., Montreal, Que.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
Staneland Co., Ltd., The, Victoria, B.C.

PAINT, Graphite.

Brandram-Henderson, Ltd., Halifax, N.S.

PAINT, Ground in Oil.

Brandram-Henderson, Ltd., Halifax, N.S., and Montreal, Que.
British America Paint Co., The, Victoria, B.C.
Canada Paint Co., Ltd., The, Montreal, Que., and Winnipeg, Man.
Canadian Oil Companies, Ltd., Toronto, Ont.
Dominion Paint Works, Ltd., Walkerville, Ont.
Jamieson, James W., & Co., Montreal, Que.
Muirhead, A., Co., Ltd., Toronto, Ont.
Pinchin, Johnson & Co. (Canada), Ltd., Toronto.
Ramsay, A., & Son Co., Montreal, Que.
Roche, David, Halifax, N.S.
Staneland Co., Ltd., The, Victoria, B.C.

PAINT, Mineral Rubber.

Canadian Mineral Rubber Co., Ltd., Winnipeg.

PAINT, Mixed.

Brandram-Henderson, Ltd., Halifax, N.S., and Montreal, Que.
British America Paint Co., The, Victoria, B.C.
Canada Paint Co., Ltd., The, Montreal, Que., and Winnipeg, Man.
Canadian Oil Co.s, Ltd., Winnipeg, Man.
Dominion Paint Works, Ltd., Walkerville, Ont.
Imperial Varnish & Color Co., Ltd., Toronto.
Jamieson, James W., & Co., Montreal, Que.
Jamieson, R. C., & Co., Ltd., Montreal, Que.
Lowe Bros., Ltd., Toronto, Ont.
Martin-Senour Co., Ltd., The, Montreal, Que.
McArthur, Irwin, Ltd., Montreal, Que.
Moore, Benjamin, & Co., Ltd., Toronto, Ont.
Mount Royal Color & Varnish Co., The, Montreal, Que.
Ottawa Paint Works, The, Ottawa, Ont.
Pinchin, Johnson & Co., (Canada), Ltd., Toronto, Ont.
Ramsay, A., & Son Co., Montreal, Que.
Roche, David, Halifax, N.S.
Sherwin-Williams Co. of Canada, Ltd., Montreal. Que.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
Staneland Co., Ltd., The, Victoria, B.C.
Stephens, G. F., & Co., Ltd., Winnipeg, Man.
Winnipeg Paint & Glass Co., Ltd., Winnipeg.

PALM OIL.—The palm oil of Africa is obtained from the fruit pulp of Elais Guineensis, and the kernels of the fruit are also exported for the extraction of oil. The tree has been introduced into the West Indies and South America. In temperate climates the oil assumes the consistency of butter. It is used in the manufacture of soap and stearine, and as a lubricant. For other oils derived from palms, (see COCO-NUT OIL and COHUNE OIL.

PALMYRA WOOD.—Properly the wood of the Palmyra palm, but the wood of several other palms is sold under this name. It is made into sticks, buttons, &c.

PANAMA BARK.—A name for the saponaceous bark of the Quillaja.

PANAMA HATS.—Hats woven in one piece from the leaves of Carludovica palmata, a kind of screw pine which grows in the Andes. They may be rolled up without injpry. (See HATS.)

PANS, Bakers' and Confectioners'.

Brantford Oven & Rack Co., Ltd., Brantford,
Davidson, The Thos., Mfg. Co., Ltd., Montreal.
Fletcher Mfg. Co., Ltd., Toronto, Ont.
Gardner, Robt. & Son, Ltd., Montreal, Que.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Markwell Mfg. Co., Ltd., Winnipeg, Man.
Wilson, C. & Sons, Toronto, Ltd.

PANS (Frying), and Spiders.

Amherst Foundry Co., Ltd., Amherst, N.S.
Aubry, A., & Fils, Montreal, Que.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Sheet Metal Products Co., of Canada, Ltd., Toronto, Ont.
Smart, The Jas., Mfg. Co., Ltd., Brockville, Ont.
Wright, E. T., & Co., Hamilton, Ont.

PANTS, Working.

Barrington Woolen Mills, Barrington, N.S.
Berman Bros., & Co., Montreal, Que.
British Mfg. Co., Montreal, Que.
Carhartt, Hamilton, Manufr., Ltd., Toronto.
Carss Mackinaw Clothing Co., Ltd., Orillia, Ont.
Creaser, J. F., Co., Ltd., LaHave, N.S.
Crown Pants Co., Montreal, Que.
Dominion Clothing Co., Montreal, Que.
Eastern Pant Mfg. Co., Amherst, N.S.
Finnie & Murray, Winnipeg, Man.
Goodhue, J. B., Rock Island, Que.
Great Western Garment Co., Ltd., The, Edmonton, Alta.
Henderson Mfg. Co., Winnipeg, Man.
Hoffman, T. & Co., Montreal, Que.
Levy, H. & Sons, Ltd., Montreal, Que.
MacKenzie, Ltd., Ottawa, Ont.
Monarch Shirt Co., The, Rock Island, Que .
Montreal Shirt & Overall Co., Ltd., Montreal.
Oxford Mfg. Co., Ltd., Oxford, N.S.
Paragon Trousers Co., Montreal, Que.
Peabody's Sales Corporation, Ltd., Walkerville, Ont.
Peerless Overall Co., Rock Island, Que.
Randall & Johnston, Ltd., Toronto, Ont.
Rubin Bros., Montreal, Que.
Smart-Woods, Ltd., Ottawa, Ont.
Snag-Proof Overall Co., Beebe, Que.
Stag Pant & Overall Co., Beebe, Que.
St. Henry Overall Mfg. Co., Montreal, Que.
Telford Bros. Garment Co., Rock Island, Que.
Tolton Mfg. Co., Stratford, Ont.
Turner Beeton & Co., Ltd., Victoria, B. C.
Union Overall Mfg. Co., of Canada, Montreal.
Union Overall Co., Winnipeg, Man.
Unity Mfg. Co., Toronto, Ont.
Vineberg, Singer Co., Montreal, Que.
Walker Pant & Shirt Co., Walkerville, Ont.
Warwick Overall Co., Warwick, Que.
Wilkins, Robt. Co., Co., Ltd., Farnham, Que.

PAPER. (See PULP and PAPER and CARDBOARD, MILLBOARD, and PAPIER-MACHE.)

PAPER. Bag.

Eddy, The E. B. Co., Ltd., Hull, Que.
Lincoln Paper Mills, Ltd., Merritton, Ont.
Ford, J., & Co., Port Neuf, Que.
Wilson, Ltd., J. C., 61 St. Alexander St., Montreal, Que.

PAPER. Binders'.

McArthur, Alex. & Co., Montreal.

PAPER. Blotting.

Canada Paper Co., Montreal.

PAPER. Bond.

Canada Paper Co., Ltd., Montreal.
Howard Smith Paper Mills, Ltd., Montreal and Beauharnois, Que.
Kinleith Paper Co., Ltd., St. Catharines, Ont.
Rolland Paper Co., St. Jerome, Que., Mount Rolland, Que., and Montreal, Que.
Provincial Paper Mills Co., Ltd., Toronto, Ont.
Toronto Paper Mfg. Co., Cornwall, Ont.

PAPER. Book and Litho.

Canada Paper Co., Ltd., Montreal.
Eddy Co., The E. B., Ltd., Hull, Que.
Kinleith Paper Mills Co., Ltd., St. Catharines, Ont.
Provincial Paper Mills Co., Ltd., Toronto, Ont.
Toronto Paper Mfg. Co., Cornwall, Ont.

PAPER. Bristol.

Don Valley Paper Co., Ltd., Toronto, Ont.
Toronto Paper Mfg. Co., Cornwall, Ont.
Canada Paper Co., Montreal and Toronto.

PAPER. Building and Sheathing.

Bird, F. W., & Son, Hamilton, Ont., and Pont Rouge, Que.
British Columbia Sulphite Fibre Co., Ltd., Vancouver, B.C.
Eastern Paper Co., Ltd., St. Basile, Que.
Laurentide Co., Ltd., Grand Mere, Que.
McArthur, Alex. & Co., Montreal, Que.
McLeod Pulp Co., Ltd., Liverpool, N.S.
Montreal Paper Co., St. Basile, Que.
Northumberland Paper and Electric Co., Ltd., Campbellford, Ont.
Riordon Pulp and Paper Co., Ltd., Montreal.
Jonquiere Pulp Co., Ltd., Jonquiere, Que.
Ford, R. & Son, Port Neuf, Que.
Strathcona Paper Co., Strathcona, Ont.
Walker, J. R. & Co., Montreal, Que.
Western Paper Mills, Ltd., Vancouver, B.C.

PAPER. Cardboard Specials.

Hinde & Dauch Paper Co., Ltd., Toronto, Ont.
Jonquiere Pulp Co., Jonquiere, Que.
McLeod Pulp Co., Ltd., Liverpool, N.S.
Canada Paper Co., Windsor Mills, Que.
Booth, J. R., Ottawa, Ont.
Eddy Co., The E. B., Ltd., Hull, Que.
Laurentide Co., Ltd., Grand Mere, Que.
Montreal Box Board Co., Montreal.

PAPER. Carpet Lining.

Eastern Paper Co., Ltd., St. Basile, Que.
Ford, J. & Co., Port Neuf Station, Que.
Montreal Paper Co., St. Basile, Que.
Northumberland Paper and Electric Co., Ltd., Campbellford, Ont.
Western Paper Mills, Ltd., Vancouver, B.C.

PAPER. Coated.

Ritchie & Ramsay, Toronto, Ont.
Georgetown Coating Mills, Ltd., Georgetown, Ont.
National Paper Co., Valleyfield, Que.
Provincial Paper Mills Co., Ltd., Toronto, Ont.

PAPER.. Corrugated.

Hinde & Dauch Paper Co., Ltd., Toronto, Ont.
Lazier Paper Mills, Ltd., Belleville, Ont.

PAPER. Cover.

Canada Paper Co., Montreal and Toronto.
Eddy Co., The E. B., Ltd., Hull, Que.
Provincial Paper Mills Co., Ltd., Toronto, Ont.
Ritchie & Ramsay, Toronto, Ont.

PAPER. Envelope.

Don Valley Paper Co., Ltd., Toronto.
Kinleith Paper Co., Ltd., St. Catharines, Ont.
Provincial Paper Mills Co., Ltd.,Toronto, Ont.
Toronto Paper Mfg. Co., Cornwall, Ont.

PAPER. Felts.

Bird, F. W., & Son, Hamilton, Ont., and Pont Rouge, Que.
Eastern Paper Co., Ltd., St. Basile, Que.
Ford, J. & Co., Port Neuf, Que.
Ford, R. & Son, Port Neuf, Que.
McArthur, Alex. & Co., Montreal.
Montreal Paper Co., St. Basile, Que.
Northumberland Paper and Electric Co., Ltd., Campbellford, Ont.
Western Paper Mills, Ltd., Vancouver, B.C.

PAPER. Fibre.

Canada Paper Co., Montreal and Toronto.
Dominion Paper Co., Montreal, Que.
Lincoln Paper Mills Co., Ltd., Merritton, Ont.
McArthur, Alex. & Co., Montreal, Que.
Riordon Pulp and Paper Co., Merritton, Ont.
Strathcona Paper Co., Strathcona, Ont.
Wilson, Ltd., J. C., Montreal, Que.

PAPER. Fibre Board Boxes.

Hinde and Dauch Paper Co., of Canada, Toronto, Ont.

PAPER. Flour Sacks.

Eddy Co., The E. B., Ltd., Hull, Que.
Lincoln Paper Mills Co., Ltd., Merritton, Ont.
Wilson, Ltd., J. C., 61 St. Alexander St., Montreal.

PAPER. Glazed.

Provincial Paper Mills Co., Ltd., Toronto, Ont.

PAPER. Hanging.

Lincoln Paper Mills, Ltd., Merritton, Ont.
McArthur, Alex. & Co., Montreal, Que.

PAPER. Kraft.

Brompton Pulp & Paper Co., Ltd., East Angus, Que.
Dominion Paper Co., Ltd., Montreal, Que.
Dryden Timber & Power Co., Ltd., Dryden, Ont.
Wayagamack Pulp & Paper Co., Ltd., Three Rivers, Que.

PAPER, News.

Abitibi Power & Paper Co., Montreal.
Anglo-Newfoundland Development Co., Ltd., Grand Falls, Newfoundland.
Belgo-Canadian Pulp & Paper Co., Shawinigan Falls, Que.
Booth, J. R., Ottawa, Ont.
Canada Paper Co., Montreal and Toronto.
Crabtree & Son, Edwin, Crabtree Mills, Quebec.
Donnacona Pulp & Paper Co., Donnacona, Que.
Eddy Co., The E. B., Hull, Que.
Fort Frances Pulp & Paper Co., Ltd., Fort Frances, Ont.
Laurentide Co., Ltd., Grand Mere, Que.
Lincoln Paper Mills Co., Ltd., Merritton, Ont.
News Pulp & Paper Co., Ltd., St. Raymond, Que.
Powell River Co. Ltd., Powell River, B.C.
Price Bros. & Co., Ltd., Kenogami, Que.
Riordon Pulp and Paper Co., Ltd., Montreal.
Spanish River Pulp & Paper Mills, Ltd., Toronto, Ont.
Ontario Paper Co., Thorold, Ont.
Brompton Pulp & Paper Co., East Angus, Que.
J. Ford & Co., Port Neuf, Que.

PAPER, Roofing.

Bird, F. W., & Son, Hamilton, Ont., and Pont Rouge, Que.
Eastern Paper Co., Ltd., St. Basile, Que.
Ford, Joseph & Co., Port Neuf, Que.
Ford, R. & Son, Port Neuf, Que.
Montreal Paper Co., St. Basile, Que.
Walker, J. R. & Co., Montreal, Que.
Western Paper Mills, Ltd., Vancouver, B.C.

PAPER. Straw Board.

Eastern Paper Co., Ltd., St. Basile, Que.
Ford, J. &. Co., Port Neuf, Que.
Lazier Paper Mills, Ltd., Belleville, Ont.
Lincoln Paper Mills Co., Ltd., Merritton, Ont.
McArthur, A. & Co., Montreal, Que.
Campbellford, Ont.
Miller Bros., Glenmiller and oMntreal.
Northumberland Paper and Electric Co.
Trent River Paper Co., Ltd., Frankford, Ont.

PAPER. Tag.

Don Valley Paper Co., Ltd., Toronto.
Eddy Co., The E. B., Ltd., Hull, Que.
Booth, J. R., Ottawa, Ont.

PAPER. Tissue and Toilet.

Eddy Co., The E. B., Ltd., Hull, Que.
Garden City Paper Mills, Ltd., St. Catharines, Ont.
Interlake Tissue Mills, Ltd., Merritton, Ont.
Wilson, J. C., Ltd., 61 St. Alexander St., Montreal, Que.

PAPER. Wall Board.

Beaver Co., Ltd., Beaverdale, Que., and Thorold, Ont.
Bishoprick Wallboard Co., Ottawa, Ont.
Hinde & Dauch Paper Co. of Canada, Toronto.

PAPER. Wood Board.

Beaver Co., Ltd., Thorold, Ont.
Booth, J. R., Ottawa, Ont.
Brompton Pulp & Paper Co., Ltd., East Angus, Que.
Canada Paper Co., Montreal, Que.
Eddy Co., The E. B., Ltd., Hull, Que.
Laurentide Co., Ltd., Grand Mere, Que.
Northumberland Paper & Electric Co., Campbellford, Ont.
McLeod Pulp Co., Liverpool, N.S.
Western Paper Mills, Ltd., Vancouver, B.C.
Wilson, J. C., Ltd., 61 St. Alexander St., Montreal, Que.

PAPER. Wrapping.

Booth, J. R., Ottawa, Ont.
Canada Paper Co., Ltd., Montreal and Toronto.
Dominion Paper Co., Montreal, Que.
Don Valley Paper Co., Ltd., Toronto, Ont.
Eddy Co., The E. B., Ltd., Hull, Que.
Ford, J. & Son, Port Neuf, Que.
Fisher, John & Co., Dundas, Ont.
Ford, Rolland, Port Neuf, Que.
Laurentide Co., Ltd., Grand Mere, Que.

PAPER. Writing.

Howard Smith Paper Mills, Ltd., Beauharnois, Que.
Kinleith Paper Co., St. Catharines, Ont.
Rolland Paper Co., Montreal, Que.
Provincial Paper Mills Co., Ltd., Toronto, Ont.
Toronto Paper Manufacturing Co., Cornwall, Ont.

PAPER, Asbestos, Corrugated.

Asbestos Mfg. Co., Ltd., The, Montreal, Que.
Canadian Asbestos Co., Montreal, Que.

PAPER, Carbon

Canadian Typewriter Co., Montreal, Que.
Carter's Ink Co., Montreal, Que.
Peerless Carbon & Ribbon Mfg. Co., Ltd., Toronto, Ont.
Permanent Ink Co., Ltd., Hamilton, Ont.
Underwood, John, & Co., Toronto, Ont.
United Typewriter Co., Ltd., Toronto, Ont.
Wilson Carbon Paper Co., Ltd., Montreal.

PAPER, Gummed.

Ritchie & Ramsay, Ltd., Toronto, Ont.

PAPER, Wall or Paper Hangings. (See Wall-paper.)

PAPETERIES. (See also Stationery.)

Barber-Ellis, Toronto, Ont.
Buntin, Gillies & Co., Ltd., Hamilton, Ont.
Dawson, W. V., & Co., Montreal, Que.
Gage, W. J., & Co., Ltd., Toronto, Ont.
Reason, H. T., & Co., Ltd, London, Ont.
Warwick Bros & Rutter,. Ltd., Toronto, Ont.

PAPIER-MACHE.—The best papier-mache is made by Clay's method of pasting together specially prepared sheets of paper on a mould, but it is often made of pulp, to which glue has been added, pressed between dies. Carton-pierre, used for house decoration, consists of paper pulp mixed with whiting and glue; and Martin's Ceramic papier-machie is composed of pulp, resin, glue, and sugar of lead. When ready the surface is decorated with paintings, gold-leaf, and thin scales of mother-of-pearl. The introduction of cheap Japanese lacquer ware has forced manufacturers to adopt a cheap method of decoration by transfer printing, and the material used now is generally wood-pulp.

PARAFFIN, a burning oil obtained from petroleum, shale, bituminous coal, &c. Paraffin-wax is a solid, white, tasteless substance with a melting point varying from 80 deg. to 130 deg. F. The softer wax is used in the preparation of matches, and the harder is the substance most commonly used in the manufacture of candles.

PARAGUAY TEA. (See MATE.)

PARASOLS and SUNSHADES.

Bailey, Dixon & Co. ,Ltd., Toronto, Ont.
British Columbia Umbrella Factory, Vancouver, B.C
Brophey Umbrella Co., Ltd., Toronto, Ont ..
Eclipse Umbrella Co., Ltd., Toronto, Ont.
Fairbairn, R D,. Co., Ltd., Toronto, Ont.
Dominion Umbrella Factory, Montreal, Que.
Irving Umbrella Co., Ltd., Toronto, Ont.

PARCHMENT.—Skins of animals carefully prepared for writing on, and other purposes. Common parchment is generally made from sheepskins, fine parchment or vellum from the skins of kids, lambs, and young calves, and the parchment used by bookbinders from pig-skin. When intended for writing on the parchment is worked over with sifted chalk and pumice-stone.

PAREIRA BRAVA, a climbing plant, indigenous in the forests of Peru and Brazil. The root contains a bitter principle which is prescribed in urinary diseases.

PARIS GREEN, a pigment—aceto-arsenite of copper; called also Schweinfurt green.

PARIS GREEN.

Canada Paint Co., Ltd., Montreal, Que., and Winnipeg, Man.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.

PARMESAN, a cheese made in the neighbourhood of Bergamo, Pavia, and Cremona, Italy, and exported in considerable quantity. It is used in cooking.

PARTRIDGE WOOD, a cabinet wood of unknown origin, often identified with the Bois perdrix of Martinique and Guiana but probably the product of a leguminous tree, which grows in the West Indies and Brazil.

PASTE, Photo, Etc.

Bull, John, Mfg. Co., Hamilton, Ont.
Domestic Specialty Co., Ltd., Hamilton, Ont.
Excel Mfg. Co., Ltd., Montreal, Que.
Gilmour Bros. & Co., Montreal, Que.
Masse Industrial Co., The, Windsor, Ont.
Reliance Ink Co., Ltd., Winnipeg, Man.
Rose & Laflamme, Ltd., Montreal, Que.
Stuart & Foster, Ltd., Toronto, Ont.
Underwood, John, & Co., Toronto, Ont.

PASTE, Paper Hangers'.

Eastern Paint Co., Ltd., Halifax, N.S.
Stuart & Foster, Limited, Toronto, Ont.

PATCHOULI, a scent derived from the leaves of a plant which grows in the East Indies, particularly in Sylhet, Ceylon, Java, and the Malay Peninsula. It is used in perfumery, and an essential oil of great potency is extracted from it. It drives away moths, and is held by the Arabs to possess curative properties.

PATENT FUEL. (See BRIQUETTES.)

PATTERN MAKERS.

Corbet Foundry Co., The, Owen Sound, Ont.
Galt Malleable Iron Co., Ltd., Galt, Ont. .
Hall Engineering Works, The, Montreal, Que.
Hamilton Pattern Works, The, Hamilton, Ont.
Heaps Engineering Co., Ltd., New Westminster, B.C.
Marine Iron Works, Victoria, B.C.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Ross & Howard Iron Works Co., Ltd., Vancouver, B.C.
Stevens Co., of Galt, Ltd., The, Galt, Ont.
Turner, John, & Son, Toronto, Ont.
Union Foundry & Machine Works, Ltd., St. John, N.B.
Wells Pattern & Model Works, Toronto, Ont.
Westport Mfg. & Plating Co., Ltd., The, Westport, Ont.

PEACH, the fruit of Persica vulgaris, which is grown in all the milder countries. As an article of international commerce, however, the fruit is of importance chiefly in California, a few of the northern states and the Niagara district in Ontario. Some are also exported from the Cape of Good Hope and Argentina. The nectarine is merely a variety of the peach.

PEACH WOOD. (See BRAZIL WOOD.)

PEACOCK.—There are two kinds of peacock, P. cristatus of India and Ceylon, which is domesticated in Europe and America and P. muticus of Java, Borneo, &c. The feathers are exported.

PEA-NUTS. (See GROUND-NUTS.)

PEANUT BUTTER.

Clark, J .Sutton, Ltd., St. George, N.B.
MacLaren Imperial Cheese Co., Ltd., Toronto.

PEAR.—The pear is grown in numerous varieties in all temperate countries. It grows in most parts of Canada. In the United States they are extensively cultivated in New Jersey, Delaware, Colorado, and California, the Bartlett pear being the favorite kind, and large quantities are canned. Pears are also sent to Europe from the Argentine Republic and the Cape of Good Hope, and these have the advantage of ripening in the winter of the northern hemisphere, when fresh fruit is not to be had. (See also **PRICKLY PEAR.**)

PEARL-ASH. (See POTASH.)

PEARL BARLEY. (See BARLEY.)

PEARL POWDER. (See BISMUTH.)

PEAS.—There are two distinct species of pea—the garden pea, and the field pea; but there are innumerable varieties. There is a considerable trade in dried peas and pea-flour. The Chick pea is a vetch and not a pea. The pea crop of Canada in 1914 amounted to 3,537,100 bushels, the exports for the year ending with the 31st March, 1914, were 121,359 bushels of whole peas and 21,371 bushels of split peas. Most of the peas grown in Canada are used for fodder, particularly hog fodder.

PEAS, Split.

Canadian Cereal & Milling Co., Ltd., Toronto.
Mackay, The John, Co., Ltd., Bowmanville, Ont.
Murton, H., Guelph, Ont.

PEAT.

Peat Industries, Ltd., Montreal, Que.

PEAVIES.

Canadian Warren Axe & Tool Co., Ltd., St. Catharines, Ont.
Hills, Allan, Edge Tool Co., Ltd., Galt, Ont.
Lachute Shuttle Co., Ltd., Lachute Mills, Que.
McFarlane-Neill Mfg. Co., Ltd., The, St. Marys, N.B.
Pink, Thomas, Pembroke, Ont.

PECAN NUTS, the fruit of a species of hickory which grows chiefly in the States of Texas, Louisiana, and Mississippi. The nuts are exported to Europe, and yield an oil which is used in the United States for the same purposes as walnut oil in Europe. The white hickory, and the true hickory also yield nuts, and the wood is used to make cart-hoops, handspikes, carriage shafts, &c.

PEDESTALS.

Elora Furniture Co., The, Elora, Ont.
Lippert Furniture Co., Ltd., Berlin, Ont.
Lippert, The Geo. J., Table Co., Ltd., Berlin, Ont.
Malcolm & Souter Furniture Co., Ltd., Hamilton, Ont.
Toronto Furniture Co., Ltd., Toronto, Ont.
Valley City Seating Co., Ltd., The, Dundas, Ont.
Wunder Furniture Mfg. Co., Ltd., Berlin, Ont.

PEKAN. (See **MARTEN.**)

PELLITORY.—The pellitory of chemists is the root of the Spanish pellitory, which also grows in Algeria and Arabia. Another species is cultivated in Bohemia and near Magdeburg, and its root is also used in medicine, and in the composition of some kinds of snuff.

PELTRY, a general name for undressed skins of fur-bearing animals.

PENANG LAWYERS, stems of a palm exported from the Malay Peninsula, and dressed and polished for walking-sticks.

PENCILS.—Ordinary pencils are made of graphite, or graphite mixed with clay (see **BLACK-LEAD**). The wood used is that of the Virginian or Florida cedar, which is straight grained and easily cut. The pencils are stamped with the letters H for hard, B for black or soft, and F for firm, a repetition of the letters indicating a higher degree of the quality. In the United States, S is used for soft, V for very, and M for medium. Formerly when the graphite mines of Borrowdale were productive, pencils were made in England, and some are still manufactured at Keswick, but the great seat of pencil-manufacture at the present time is Nuremberg. They are also made in the United States and Canada. Coloured pencils are made of pigments mixed with wax or gum and tallow, and clay is sometimes added. In copying and indelible pencils a concentrated solution of aniline violet is used.

PENGUIN OIL. (See **OILS.**)

PENNANTS.

Couper, The H. S. Co., Toronto, Ont.
Hopkins, Mfg. Co., Ltd., The, Toronto, Ont.
Pugh Specialty Co., Ltd., Toronto, Ont.

PENNYROYAL, a species of mint which grows in Europe and Western Asia. It is popular as a domestic medicine. A small plant of North America is also known as pennyroyal, and possesses similar properties. Essential oils are extracted from both plants.

PENS. (See **STEEL PENS and QUILLS.**)

PENS, Fountain.

Waterman, L. E., & Co., Ltd., Montreal, Que.

PENSTOCKS.

Farand & Delorme, Ltd., Montreal, Que.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jencks Machine Co., Ltd., Sherbrooke, Que.
MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.
Structural Steel Co., Ltd., Montreal, Que.
Sudbury Construction and Machinery, Co., Ltd., The, Sudbury, Ont.

PEPPER, the berry of Piper nigrum, a native of the East Indies, and now cultivated in other tropical countries. White pepper is the seed from which the skin and pulp has been removed, and is less pungent. Piper troicum, closely allied to common pepper, but more pungent, is also grown in some parts of India, and also Chavica Roxburghii, which yields Long Pepper. The black pepper of Malabar is considered the best, and those of Tellicherry and Penang the best white peppers. The name pepper is also given to the products of several other plants, as Cayenne pepper, Jamaica pepper, or Pimento, and Guinea or Malaguetta pepper.

PEPPERMINT. (See **MINT.**)

PEPSINE, one of the chief constituents of gastric juice. It is prepared from the stomachs of calves, sheep and pigs, and is sold in powder or in solution. It is prescribed medicinally in wine and other preparations.

PERCUSSION CAPS.—Gun caps are small copper cylinders filled with fulminating mercury mixed with nitre, sulphur, &c.

PERFUMERY.—There are at least sixty different substances used in perfumery. Firstly, there are the gum-resins, such as benzoin, opoponax, tolu, Peru, and storax, which are the chief ingredients of incense and pastilles. Then, essential oils are extracted from lemon and orange peel, orris-root, sage, mint, and thyme, rosewood, and sandalwood, cassia and cinnamon bark, caraway seed, &c. Some flowers do not yield an essential oil, or only in very small quantities. Their odours are extracted by enfleurage—that is, by laying the flowers on thin layers of grease, or by maceration; that is, by infusion in melted fat. Oil of jasmin, for instance, is thus prepared. The oil or fat is afterwards infused in strong alcohol to form the scents sold by the perfumer. The perfumes of animal origin—musk, ambergris, civet, and castor—are very strong and lasting, and are often mixed with other odorous substances to render them less evanescent. Several artificial scents are now made by chemical mixtures. France and England are the chief countries for the manufacture of perfumery, and Bulgaria exports large quantities of rose essence.

PERFUMERY.

Bush, W. J., & Co. (Canada), Ltd., Montreal.
Lever Bros., Ltd., Toronto, Ont.
Lyman Bros. & Co., Ltd., Toronto, Ont.
Lymans, Ltd., Montreal, Que.
Royal Crown Soaps, Ltd., The, Vancouver, B.C.
Seely Mfg. Co., Ltd., Windsor, Ont.
Sovereign Perfumes, Ltd., Toronto, Ont.
Stearns, Frederick & Co., of Canada, Ltd., Windsor, Ont.
Taylor, John & Co., Ltd., Toronto, Ont.
United Drug Co., Ltd., Toronto, Ont.

PERNAMBUCO WOOD. (See BRAZIL WOOD).

PERSIAN BERRIES. (See YELLOW BERRIES).

PERSIMMON. (See DATE-PLUM).

PERU BALSAM. (See BALSAMS).

PERUVIAN BARK. (See CINCHONA.)

PETROL.—Gasolene manufactured for use in motor carriages. **(See PETROLEUM).**

PETROLEUM, or sometimes called coal oil, is obtained from wells sunk sometimes to a considerable depth in the earth. The best wells are those of Pennsylvania, which yield light oil containing a proportion of naphthas and refined oils for illumination, while the oils of Texas, Ohio, and California are heavier and yield a large proportion of lubricating oil. The oil fields of Baku on the Caspian Sea also produce heavy oils. In Scotland oil paraffin and sulphate of ammonia are obtained from oil shale. The high value of paraffin makes profitable the working of these deposits. Shale is also worked in New South Wales and recently in New Zealand.

The world's production of petroleum in 1913 was 381,508,916 barrels, of which United States produced 248,446,230 barrels. Russia ranks next to United States in production and Mexico comes third.

The Canadian production of petroleum in 1913 amounted to 228,080 barrels, of which Western Ontario produced 226,166 barrels and New Brunswick the balance. A bounty of 1¼ cents per Imperial gallon is paid by the Dominion Government upon the production of crude petroleum. This began with the year 1904 and up to the end of 1913 the amount paid in bounty was $2,195,045. The total importations of petroleum and petroleum products into Canada during the fiscal year ending March 31st, 1914, amounted to $12,796,639. The exports during the same time amounted to $39,999.

PETROLEUM AND ITS PRODUCTS.

British American Oil Co., Ltd., Toronto, Ont.
Canadian Oil Co.'s, Ltd., Toronto, Ont., and Winnipeg, Man.
Crown Oil Refining Co., Ltd., Hamilton, Ont.
Dominion Oil Co., Ltd., Hamilton, Ont.
Englehart, J. L., & Co., Petrolia, Ont.
Imperial Oil Co., Ltd., Montreal, Que., Sarnia, Ont., and Toronto, Ont.

PEWS.

Anglin, S., & Co., Kingston, Ont.
Christie Wood Working Co., Ltd., St. John, N.B.
Cushing Bros. Co., Ltd., Calgary, Alta.
Globe Furniture Co., Ltd., The, Waterloo, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Rhodes, Curry Co., Ltd., Amherst, N.S.
Smith, William & Son, Chesley, Ont.
Valley City Seating Co., Ltd., The, Dundas, Ont.

PEWTER. (See ALLOYS).

PHAETONS AND TRAPS.

Barrie Carriage Co., Ltd., Barrie, Ont.
Brantford Carriage Co., Ltd., Brantford, Ont.
Gray Sons-Campbell, The Wm., Ltd., Chatham, Ont.
McLaughlin Carriage Co., Ltd., Oshawa, Ont.
Montreal Carriage Works, Montreal, Que.
Mount Forest Carriage Co., Ltd., Mount Forest, Ont.
Munro & McIntosh Carriage Co., Ltd., Alexandria, Ont.
Simpson, The I., Mfg. Co., Ltd., Brantford, Ont.
Tudhope Carriage Co., Ltd., Orillia, Ont.

PHARMACEUTICAL PREPARATIONS.

Cheseborough Mfg. Co., Consolidated, Montreal.
Davis & Lawrence Co., Montreal, Que.
Frosst, Chas. F., & Co., Montreal, Que.
Hartz, J. F., Co., Ltd., Toronto, Ont.
Horner, F. W., Ltd., Montreal, Que.
Ingram & Bell, Ltd., Toronto, Ont.
Lyman Bros. & Co., Ltd., Toronto, Ont.
Lymans, Ltd., Montreal, Que.
National Drug & Chemical Co. of Canada, Ltd., Montreal, Que.
Parke, Davis & Co., Walkerville, Ont.
Pompeian Mfg. Co., Ltd., Toronto, Ont.
Robin & Co., Montreal, Que.
Sanol Manufacturing Co. of Canada, Ltd., Winnipeg, Man.
Saunders, W. E., & Co., London, Ont.
Stearns, Frederick, & Co., of Canada, Ltd., Windsor, Ont.
Taylor, John F., Pharmacal Co., Ltd., Toronto.
Toronto Pharmacal Co., Ltd., Toronto, Ont.
Wampole, Henry K., & Co., Ltd., Perth, Ont.
Waterbury Chemical Co., Ltd., Toronto, Ont.
Wingate Chemical Co., Ltd., Montreal, Que.

PHEASANT.—The pheasant is sold for food, and the feathers of many species are used as ronaments, especially those of the Argus pheasant, a native of the Malay Peninsula and Siam.

PHENOL DYES.—Compounds of phenol or carbolic acid, derived from benzine and naphthaline, are much used in dyeing. Among the most important are picric acid (yellow), napthol or Martin's yellow, phthaleins, cerulein (green), and eosine (red).

PHONOGRAPHS.

Berliner Gramophone Co., Ltd., Montreal, Que.
Columbia Graphophone Co., Toronto, Ont.
Pollock Mfg. Co., Berlin, Ont.

PHORMIUM. (See **NEW ZEALAND HEMP**).

PHOSPHATE, Tri-Sodium.

Electric Boiler Compound Co., Ltd., Guelph, Ont.

PHOSPHATES.—Phosphorus is one of the metalloid elements, and occurs in two important allotropic forms—ordinary phosphorus and red phosphorus—the latter being produced by heating ordinary phosphorus to a temperature of 464 deg. F. in a closed vessel. Red phosphorus is not so easily set on fire, and is not poisonous. When red phosphorus is used in the manufacture of matches, there is no danger to the health of the operatives. Bones used to be the chief source of phosphorus, but now it is made chiefly from apatite, a phosphate of lime, and especially the particular form known as sombrerite, because found on Sombrero, an island to the east of the Virgin Islands in the West Indies. Guano is largely phosphatic, and phosphate of lime occurs in coprolites and other substances which are used as manure. The chief sources of phosphatic rock are the United States, particularly Florida, Tennessee, and South Carolina, and France (including Algeria). **(See FERTALIZERS).**

The world's production of natural phosphates in the year 1912 was 6,888,908 metric tons of 2,204 pounds each. The following countries were the principal producers:—

	Metric Tons.
United States	3,203,636
Tunis (North Africa)	2,057,498
Algeria (North Africa)	377,601
France	330,000
Ocean Islands	300,000
Belgium	203,100
Christmas Islands	159,512
Egypt	69,958
Palau Islands	60,000
Tuamotu	40,000
Russia	25,000
Dutch West Indies	20,362
Japan	7,879
South Australia	6,198

For many years Canada was an important producer of phosphates in the form of apatites, but of late years she has been producing little or nothing. Her production in 1912 was only 164 tons.

Guano is another important source of phosphates and is used very largely as fertilizers, although the available quantity is rapidly decreasing. The principal exporting countries are as follows:—

	Metric Tons.
Belgium	31,697
Argentine Republic	24,078
British India	18,650
Netherlands	11,046
Norway	10,693

Another source of phosphate, particularly for fertilizing purposes is the slag, resulting from the smelting of iron ores containing small percentages of phosphate and known in the market as basic slag. The world's production of this commodity in 1912 was 4,144,000 tons, of which the principal producing countries were as follows:—

	Metric Tons.
Germany	2,110,000
France	679,000
Belgium	534,000
United Kingdom	400,000
Luxemburg	253,000
Austria Hungary	92,000

PHOSPHATES. (See also Fertilizers.)

Capelton Chemical & Fertilizer Co., Buckingham, Que.
Cross Fertilizer Co., Ltd., Sydney, N.S.
Miller, Guitford Co., Co., Middleton, N.S.
Nichols Chemical Co. of Canada, Ltd., The, Montreal, Que.

PHYSIC NUTS, the seeds of Curcas purgans, a bush indigenous in Cuba, the tropical parts of South America, and the Cape Verde Islands. The seeds are a powerful purgative, and their oil, commonly known as Jatropha oil, is used for burning, and as an irritant, like croton oil.

PIANO ACTIONS.

Higel, The Otto, Co., Ltd., Toronto, Ont.
Loose, J. M., & Sons, Ltd., Toronto, Ont.
Sterling Actions & Keys, Ltd., Toronto, Ont.

PIANO BENCHES AND STOOLS.

Doherty, W., Piano & Organ Co., Ltd., Clinton, Ont.
Goderich Organ Co., Ltd., Goderich, Ont.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Thomas Piano & Organ Co., Ltd., Woodstock, Ont.

PIANO HAMMERS.

Best, D. M., & Co., Toronto, Ont.
Bohne, W., & Co., Toronto, Ont.
Higel, The Otto, Co., Ltd., Toronto, Ont.

PIANO KEYBOARDS.

Thomas Bros., Ltd., St. Thomas, Ont.

PIANO KEYS.

Higel, The Otto, Co., Ltd., Toronto, Ont.
Loose, J. M., & Sons, Ltd., Toronto, Ont.
Sterling Actions & Keys, Ltd., Toronto, Ont.

PIANO STRINGS.

Best, D. M. & Co., Toronto, Ont.
Bohne, W. & Co., Toronto, Ont.

PIANOS.

Amherst Pianos, Ltd., Amherst, N.S.
Bell Piano & Organ Co., Ltd., Guelph, Ont.
Craig Piano Co., The, Montreal, Que.
Doherty, W., Piano &Organ Co., Ltd., Clinton, Ont.
Dominion Organ & Piano Co., Ltd., The, Bowmanville, Ont.
Evans Bros. Piano & Mfg. Co., Ltd., Ingersoll, Ont.
Foster-Armstrong Co., Ltd., Berlin, Ont.
Gourlay, Winter & Leeming, Toronto, Ont.
Grinnell Brothers, Windsor, Ont.
Gingras & Co., Montreal, Que.
Gingras & Freres, Montreal, Que.
Hay & Co., Ltd., Woodstock, Ont.
Heintzman & Co., Ltd., Toronto, Ont.
Heintzman, Gerhard, Ltd., Toronto, Ont.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
Martin-Orme Piano Co., Ltd., Ottawa, Ont .
Mendelssohn Piano Co., Toronto, Ont.
Mendelssohn Piano Co., Toronto, Ont.
Mulholland-Newcombe, Ltd., Toronto, Ont.
Newcombe Piano Co., Ltd., Toronto, Ont.
Nordheimer Piano & Music Co., Ltd., Toronto, Ont.
Pratte, Antonio, Montreal, Que.
Reid Bros., Mfg. Co., of Toronto, Toronto, Ont.
Senecal & Quidez, Ste. Therese, Que.
Shaw, J. W., & Co., Montreal, Que.
Sherlock-Manning Piano & Organ Co., Ltd., London, Ont.
Stanley Piano Co., Toronto, Ont.
Williams Piano Co., Ltd., The, Oshawa, Ont.
Williams, R. S. & Sons, Ltd., Toronto, Ont.
Willis Piano Co., Ltd., Montreal Que.
Wormwith Piano Co., Ltd., The, Kingston, Ont.
Wright Piano Co., Ltd., The, Strathroy, Ont.

PIASSAVA.—The palm Attalea funifera is common in the Amazons basin, and yields a fibre from which ropes and mats are made. Piassava fibre is shipped also to Europe, where it is made into brushes and brooms. A fibre from another Brazilian palm, is known by the same name.

PICHURIM BEANS. (See SASSAFRAS).

PICKAROONS.

Canadian Warren Axe & Tool Co., Ltd., St. Catharines, Ont.
Lachute Shuttle Co., Ltd., Lachute Mills, Que.

PICKER-STICKS.

Canada Wheel Works, Ltd., Merritton, Ont.
Lachute Shuttle Co., Ltd., Lachute Mills, Que.

PICKERS, Wool.

Karch, H. W., Hespeler, Ont.

PICKETS. Fence.

Chew Bros. Lumber Co., The, Midland, Ont.
Christie Woodworking Co., Ltd., St. John, N.B.
Colonial Lumber Co., Ltd., The, Pembroke, Ont.
Crow's Nest Pass Lumber Co., Ltd., Wardner, B.C.
Cushing Bros. Co., Ltd., Calgary, Alta.
Edwards, W. C., & Co., Ltd., Ottawa, Ont.
Fesserton Timber Co., Ltd., The, Fesserton, Ont.
Gignac, J. H., Ltd., Quebec, Que.
Harrison, John & Sons, Ltd., Owen Sound, Ont.
Huntsville Lumber Co., The, Huntsville, Ont.
Lake Superior Corporation, The, Sault Ste. Marie, Ont.
Leigh, Jas. & Sons, Victoria, B. C.
Murray & Gregory, Ltd., St. John, N.B.
McLachlan Bros., Ltd., Arnprior, Ont.
Ontario Wood Pump Co., Shakespeare, Ont.
Rathbun Company, The, Deseronto, Ont.
Swedish Canadian Lumber Co., Ltd., Nordin, N. B.
Victoria Lumber & Mfg. Co., Ltd., Chemainus, B.C.
Warner & Co., St. John, N.B.

PICKLES.

Blackwoods, Ltd., The, Winnipeg, Man.
Bourque, H., & Fils., Montreal, Que.
Davies, The Wm., Co., Ltd., Toronto, Ont.
Dyson Company, The, Winnipeg, Man.
Empress Mfg. Co., Ltd., Vancouver, B.C.
Heinz, H. J., Co., Leamington, Ont.
Kootenay Columbia Preserving Works, Nelson, B.C.
Leas', Limited, The, Simcoe, Ont.
London Canning Co., London, Ont.
Lytle, The T. A. Co., Ltd., Toronto, Ont.
McCready, T., & Sons, Ltd., St. John, N.B.
St. Louis Preserving Co., Ltd., Montreal, Que.
Taylor, W. A., Winnipeg, Man.
Taylor & Pringle Co., Ltd., Owen Sound, Ont.
White Star Mfg. Co., Winnipeg, Man.

PICKS.

Canada Axe & Harvest Tool Mfg. Co., Ltd., Montreal, Que.
Cumming, J. W., & Son, Ltd., New Glasgow, N.S.
Welland Vale Mfg. Co., Ltd., The, St. Catharines, Ont.
Whitman & Barnes Mfg. Co., St. Catharines, Ont.

PICRIC ACID, or Trinitrophenol, is used in dyeing (see **PHENOL DYES**). Its ammonia salt is an ingredient in explosives.

PIGEONS.—Pigeons are bred in many countries, as fancy birds, for pigeon racing and shooting, and also as food.

PIGS. (See HOGS).

PIKE POLES.

Canadian Warren Axe & Tool Co., Ltd., St. Catharines, Ont.
Lachute Shuttle Co., Ltd., Lachute Mills, Que.
McFarlane, Neill Mfg. Co., Ltd., The, St. Mary's N.B.
Pink, Thomas, Pembroke, Ont.
Still, F. H., Mfg. Co., Ltd., St. Thomas, Ont.
Welland Vale Mfg. Co., Ltd., The, St. Catharines, Ont.

PILCHARD, a fish of the herring tribe, the sardine of the French. It is caught in the British Channel, in the Bay of Biscay, off the coasts of Spain and Portugal, and in some parts of the Mediterranean. The English pilchard is much larger than the French sardine, but is of the same species. Many are simply salted for export. Italy draws its supplies from Tunis and Algeria.

PILES.

Raymond Concrete Pile Co., Montreal.

PILE DRIVERS.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Ingersoll Rand Co., Ltd., Montreal,
Miller Bros. & Sons, Ltd., Montreal, Que.

PILOTS, heavy blue cloths made of wool and mixed materials.

PILLOWS.

Alaska Bedding Co., Ltd., Winnipeg, Man.
Alaska Feather & Down Co., Ltd., Montreal,
Alberta Bedding Co., Ltd., Calgary, Alta.
Berlin Bedding Co., Ltd., Berlin, Ont.
British Columbia Bedding & Upholstering Co., Ltd., Vancouver, B. C.
Canadian Feather & Mattress Co., Ltd., Toronto.
Edmonton Tent & Mattress Co., Ltd., Edmonton, Alta.
Gale, Geo. & Sons, Winnipeg, Man., and Waterville, Que.
Harvey, B. F., Co., Ltd., Toronto, Ont.
Munro Steel Wire Works, Ltd., Winnipeg,
Ontario Spring Bed & Mattress Co., Ltd., London, Ont.
Restmore Mfg. Co., Ltd., Vancouver, B.C.

Rolland Freres, Montreal, Que.
Stamco, Ltd., Saskatoon, Sask.
Standard Bedding Co., Toronto, Ont.
Toronto Feather & Down Co., Ltd., Toronto, Ont.
Western Tent & Mattress Co., Calgary, Alta.
Whitworth & Restall, Toronto, Ont.

PILLS.

Brayley Drug Co., Ltd., St. John, N.B.
Gates, C., Son & Co., Middleton, N.S.
Morin, Dr. Ed., & Co., Ltd., Quebec, Que.
Parke, Davis & Co., Walkerville, Ont.
Stearns, Frederick & Co., of Canada, Ltd., Windsor, Ont.
Wampole, Henry K., & Co., Ltd., Perth, Ont.
Wells & Richardson Co., Ltd., Montreal, Que.
World's Dispensary Association, Bridgeburg, Ont.

PIMENTO, the dried fruit of a small tree chiefly confined to Jamaica. The berries, about as large as pepper corns, are dried and ground to powder, in which form the condiment is known as allspice or Jamaica pepper. Oil of pimento is sometimes used as a remedy for toothache.

PINA MUSLIN, a fabric made in the Philippines from the fibre of certain small-fruited pineapples and allied plants.

PINANG, Malay name for betel-nut.

PINE grows over a long latitude in the temperate zones. It is the principal wood in Canada, where there are three varieties in general use, both for domestic purposes and export, namely, white pine, red pine and jack pine.

White pine is the best material for most purposes. The wood is soft, light and durable and can be easily worked and holds its place with little shrinkage and swelling. Red pine is a harder material containing more resin and having greater strength for structural purposes. Jack pine is weaker than the other two varieties. It is very resinous and hard, difficult to work and more perishable.

The importations of pine into Canada are largely of four distinct species, all of which come very largely from United States, namely, long-leafed pine, short-leafed pine, Cuban pine and loblolly pine. Those are sold largely under trade names such as Georgia Pine, Southern Pine, Yellow Pine and Carolina Pine. Over thirty million feet of these woods are imported into Canada annually. These woods are used in great quantities by manufacturers of building material, agricultural implements, cars and vehicles. (See **WOOD**).

PINE OIL AND WOOD.—From the needles of the Scotch fir an oil very similar to oil of turpentine is obtained, which is used medicinally. The fibre of the leaves, mixed with wool or cotton, is woven in Germany into flannel, suppose to be beneficial to health.

PINE-APPLE, a native of tropical America, which has also been introduced into Asia and Africa. The fruit is exported from the Bahamas, the East Indies and the Azores, and in the West Indies is often used to flavour rum. Certain kinds yield fibre. (See **PINA MUSLIN**). Pine-apple oil is butyric ether ,to which the fruit itself probably owes its flavour.

PINGUIN FIBRE, the fibre of Bromelia pinguin. (See **PITA**).

PINIONS, Rawhide.

Hamilton Gear & Machine Co., The, Toronto,

PINK ROOT, the root of a native of the southern United States, called also Worm Grass and Carolina Pink, and also a native of tropical America. It is used as a vermifuge and a heart stimulant.

PINS.—These small articles give rise to a considerable trade. They are manufactured in Birmingham, and in smaller quantities in London, Stroud, Warrington, and Dublin. Germany and France are also large manufacturers. In general needles and pins are made in the same places. In America they are made in the Atlantic States, chiefly in Connecticut.

PINS, Drapery.

Hees, Geo. H. Son & So., Ltd., Toronto, Ont.
Imperial Pin Co., Ltd.
Soper, The Fred G. Co., Ltd., Toronto, Ont.

PINS, Hair.

DeLong Hook & Eye Co., of Canada, Ltd., St. Mary's, Ont.
Dominion Comb & Novelty Co., Warwick, Que.
Imperial Pin Co., Ltd.

PINS, Milled Shoulder, Threaded and Taper.

Imperial Pin Co., Ltd.
Morrow, John, Screw & Nut Co., Ltd., Ingersoll, Ont.
Pratt & Whitney Co. of Canada, Ltd., Dundas, Ont.

PINS, Rolling.

Fletcher Mfg. Co., Ltd., Toronto, Ont.
Lyster Wood Box Turning & Enameling Co., Ltd., Lyster, Que.
Thomas Bros., Ltd., St. Thomas. Ont.

PINS, Toilet and Safety.

DeLong Hook & Eye Co. of Canada, Ltd., St. Marys, Ont.
Imperial Pin Co., Ltd., Montreal, Que.

PIPE, Brass.

Garth Co., The, Montreal, Que.
Mueller, H., Mfg., Co., Ltd., Sarnia, Ont.

PIPE, Cast Iron.

Bell, David, & William, Quebec, Que.
Canada Iron Corporation, Ltd., Montreal, Que.
Canadian Allis Chalmers, Ltd., Toronto, Ont.
Gartshore-Thomson Pipe & Foundry Co., Ltd., Hamilton, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Mount Royal Foundry Co., Ltd., The, Montreal.
National Iron Works, Ltd., Toronto, Ont.
Vogel Co. of Canada, Ltd., Montreal, Que.

PIPE, Concrete Sewer.

Bedell, H. W., Picton, Ont.
Canfield, F. O., St. Mary's, Ont.
Dominion Concrete Co., Ltd., The, Kemptville, Ont.
Dominion Glazed Cement Pipe Co., Ltd., Vancouver, B.C.
National Builders' Supply & Enamel Concrete Brick Co., Ltd., Montreal, Que.
Perfection Concrete Co., Ltd., Winnipeg, Man.
Raymond Cement Products Co., Ltd., Montreal,

PIPE, Flanged.

Canada Iron Corporation, Ltd., Montreal, Que.
Gartshore-Thompson Pipe & Foundry Co., Ltd., Hamilton, Ont.
Mathieson, I., & Co., Ltd., New Glasgow, N.S.

PIPE, Iron, Corrugated and Galvanized.

Canadian Corrugated Pipe Co., Ltd., Portage La Prairie, Man.
Canada Ingot Iron Culvert Co., Ltd., Guelph, Ont.
Corrugated Pipe Co., Ltd., Stratford, Ont.
Garth Co., The, Montreal, Que.
Reed, Geo. W., & Co., Montreal, Que.
Roofers' Supply Co., Ltd., The, Toronto, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.

PIPE, Lead.

Canada Metal Co., Ltd., Toronto, Ont.
Consolidated Mining & Smelting Co. of Canada, Ltd., Trail, B. C.
Hoyt Metal Co., The, Toronto, Ont.
Mueller, H., Mfg., Co., Ltd., Sarnia, Ont.
Robertson, The James Co., Ltd., Montreal, Que. and Toronto, Ont.
Robertson, Thos. & Co., Ltd., Montreal, Que.
Steel Co. of Canada, Ltd., Montreal, Que. and Winnipeg, Man.
United Brass & Lead, Ltd., Toronto, Ont.

PIPE, Riveted.

Canadian Allis,Chalmers, Ltd., Toronto, Ont.
Dominion Bridge Co., Ltd., Montreal, Que.
Hamilton Bridge Works Co., Ltd., The, Hamilton, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Inglis, The John, Co., Ltd., Toronto, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Leonard, E., & Sons, London, Ont.,
MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.
Marsh & Henthorn, Ltd., Belleville, Ont.
Matheson, I. & Co., Ltd., New Glasgow, N.S.
McDonald, Godson & Co., Ltd., Vancouver, B.C.
Vancouver Engineering Works, Ltd., Vancouver, B.C.
Waterous Engine Works Co., Ltd., Brantford, Ont.

PIPE, Sewer, Salt Glazed and Vitrified.

Alberta Clay Products Co., Ltd., Medicine Hat, Alta.
Alberta Sewer Pipe Co., Ltd., Calgary, Alta.
British Columbia Pottery Co., Ltd., Victoria, B.C.
Dominion Sewer Pipe Co., Ltd., Swansea, Ont.
Excelsior Brick Co., Ltd., Toronto, Ont.
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Ontario Sewer Pipe Co., Ltd., The, Mimico, Ont.
Standard Clay Products Co., Ltd., St. Johns, Que.

PIPE, Soil.

Anthes Foundry, Ltd., Toronto, Ont.
Forwell Foundry, Ltd., Berlin, Ont.
Lunenburg Foundry Co., Ltd., Lunenburg, N.S.
Mount Royal Foundry Co., Ltd., The, Montreal.
Standard Ideal Co., Ltd., Port Hope, Ont.
Toronto Hardware Mfg. Co., The, Toronto.
Vancouver Pipe & Foundry Co., Ltd., The, Vancouver, B.C.
Warden, King, Ltd., Montreal, Que.
Westport Mfg. & Plating Co., Ltd., The, Westport, Ont.

PIPE, Stove. (See Stove Pipe.)

PIPE, Wood Stave.

Canadian Pipe Co., Ltd., Vancouver, B.C.
Dominion Wood Pipe Co., Ltd., New Westminster, B.C.
National Pipe & Foundry Co., Ltd., Alexandria, Ont.
Pacific Coast Pipe Co., Ltd., Vancouver, B.C.
Wattsburg Lumber Co., Ltd., Wattsburg, and Proctor, B.C.

PIPES.—The most valuable pipes are made of meerschaum. More in demand are briar pipes. **(See BRIAR-ROOT.)** The cherry is grown in Southern Europe for pipe-stems and cigar-holders, having an aromatic odour. The industry is especially developed at Baden, south of Vienna, and in the Vosges Mountains. The common jasmin and the mock orange also furnish stems.

PISTACHIO NUTS.—The P. vera, a small tree about 20 feet high, is a native of Syria and Persia, and is now cultivated in all parts of Southern Europe and the opposite coast of Africa. The kernels are eaten raw, and are used in confectionery. A burning oil is extracted from them.

PITA.—A fibre obtained from certain Bromelias allied to the pine-apple. The name is also frequently given to the fibre of the American aloe. **(See IXTLE.)** Another name for it is silk-grass.

PITCH.—The residue obtained from wood or coal-tar, petroleum, bone,tar, &c., the fire being withdrawn before the heavy oils begin to separate. Coal-tar pitch is employed in the manufacture of briquettes, in the preparation of black varnishes to protect iron and wood, and in the manufacture of lamp-black. The name pitch is also applied to the resin of various trees; Canada pitch is obtained from the Hemlock spruce, Burgundy pitch from Abies excelsa, and Russian pitch from Scotch fir.

PITCH.

Carbon Oil Works, Ltd., The, Winnipeg, Man.
Carritte-Paterson Mfg. Co., Ltd., St. John, N.B.
Carritte, de B., St. John, N.B.
Dominion Tar & Chemical Co., Ltd., Montreal.
Dominion Tar & Ammonia Co., Ltd., Hamilton, Ont.
Imperial Varnish & Color Co., Ltd., Toronto,
McArthur, Alex., & Co., Ltd., Montreal, Que.
McComb, J. H., Ltd., Montreal, Que.
Paterson Mfg. Co., Ltd., Toronto, Ont., and Montreal, Que.
Sidney Rubber Roofing Co., Sidney, B.C.

PLAICE.—This flat fish is found in the European seas from France up to Iceland, and is one of the commonest market fishes.

PLANE.—The wood of the plane is esteemed for cabinet-making work.

PLANERS, Iron Working.

Canada Machinery Corporation, Ltd., Galt, Ont.

PLANERS, Woodworking.

Beauceville, La Founderie de, Beauceville East, Que.

Berlin Machine Works, Ltd., Hamilton, Ont.
Bertrand La Cie, F. X., Mfr., Ltd., St. Hyacinthe, Que.
Canada Machinery Corporation, Ltd., Galt, Ont.
Cowan & Co., of Galt, Ltd., Galt, Ont.
Jackson, Cochrane & Co., Berlin, Ont.
Maritime Foundry & Machine Works, Ltd., Chatham, N.B.
Plessisville Foundry Co., Ltd., The, Plessisville, Que.
Preston Woodworking Machinery Co., Ltd., Preston, Ont.
Sleeper & Arkhurst, Coaticook, Que.
Victoriaville Foundry Co., Victoriaville, Que.
Waterous Engine Works Co., Ltd., Brantford, Ont.

PLANING MILLS.

Abel-Fortin, J. P., & Co., Montreal, Que.
Acme Sash & Door Co., Ltd., Winnipeg, Man.
Aitchison, D., & Co., Hamilton, Ont.
Allen, A. W., & Son, Middleton, N.S.
Ament, Philip, Brussels, Ont.
Anglin, So., & Co., Kingston, Ont.
Arbuthnot, John Co., Ltd., Winnipeg, Man.
Atchison & Co., Cornwall, Ont.
Baldwin, O'Brien & Co., St. George, N.B.
Baldwin, W. K., Baldwin's Mills, Que.
Ball Planing Mill Co., Ltd., The, Barrie, Ont.
Batts, Ltd., West Toronto, Ont.
Beach, The M. F. Co., Ltd., Winchester, Ont.
Belanger & Brother, Valleyfield, Que.
Benson & Bray, Ltd., Midland, Ont.
Berthiaume, Z., Montreal, Que.
Benoit & Fils, Montreal, Que.
Big River Lumber Co., Ltd., Prince Albert, Sask.
Blonde Lumber & Mfg. Co., Ltd., Chatham, Ont.
Boake Mfg. Co., Ltd., Toronto, Ont.
Bowman Sine Lumber Co., Calgary, Alta.
Booth, The W., Lumber Co., Ltd., Toronto, Ont.
Brandon Construction Co., Ltd., Brandon, Man.
Brennen, The M. & Sons, Mfg. Co., Ltd., Hamilton, Ont.
Breakey, John, Estate of, Breakeyville, Que.
Bobcaygeon Timber Co., Bobcaygeon, Ont .
British Columbia Fir & Cedar Lumber Co., Ltd., Vancouver, B.C.
British Columbia Mills Timber & Trading Co., Vancouver, B.C.
Brockville Lumber Co., Ltd., Brockville, Ont.
Brompton Pulp & Paper Co., The, East Angus, Que.
Bronson Timber & Saw Mill, Co., Ltd., Ottawa.
Bruce Mines Saw Mill Co., Ltd., Bruce Mines, Ont.
Brown & Rutherford, Winnipeg, Man.
Brunette Saw Mill Co., Ltd., New Westminster, B.C.
Bryan Mfg. Co., Ltd., The, Collingwood, Ont.
Burrard Lumber Co., Ltd., Vancouver, B.C.
Burrill Lumber Co., Three Rivers, Que.
Calhoun Lumber Co., Calhoun, N.B.
Calgary Woodworkers Ltd., Calgary, Alta.
Canadian Pacific Lumber Co., Ltd., Vancouver, B.C.
Canadian Western Lumber Co., Ltd., Fraser Mills, B.C.
Canadian Woodworking Co., Ltd., The, Yarmouth, N.S.
Canadian Southern Lumber Co., Ltd., Victoria, B.C.
Cameron & Co., Ltd., Ottawa, Ont.
Carew, John, Lumber Co., Ltd., Lindsay, Ont.
Carkner, D., & Co., Kenmore, Ont.
Carriere, La Cie, & Frere, Montreal, Que.
Cargill Planing Mill Co., Cargill, Ont.
Carss, The S. E. Lumber Co., Orilia, Ont.
Cascade Mills, Ltd., Vancouver, B.C.
Cavendish Lumber Co., Ltd., The, Lakefield, Ont.
Chagnon, H., & Co., Montreal, Que.
Chalifour, O., Quebec, Que.
Church & Fee, Ltd., Montreal, Que.
Columbia River Lumber Co., Ltd., Golden, B.C.
Conklin Planing Mills, Kingston, Ont.
Christie Woodworking Co., Ltd., St. John, N.B..
Clark, W. H., & Co., Ltd., Edmonton, Alta.
Consumer's Box Co., Ltd., Toronto, Ont.
Cummings, A. H., & Sons, Ltd., Coaticook, Que.
Crevier & Fils, Montreal Que.
Cushing Bros., Ltd., Calgary, Alta.
Dand, Raymond, New Glasgow, N.S.
Dansereau, J. H., Three Rivers, Que.
Davidson, James, Ottawa, Ont.
LeLaplante, L. A., Ltd., Toronto, Ont.
Demers, Paul, Montreal, Que.
Dempster, Estate of Jas., Halifax, N.S.
Dick, W. G., Bolton, Ont.
Doak Lumber & Mfg. Co., Ltd., Saskatoon, Sask.
Dyment-Baker Lumber Co., London, Ont.
East Canada Power & Pulp Co., Ltd., The, Murray Bay, Que.
Eaton, J. R. & Sons, Ltd., Orillia, Ont.
Eau Claire & Bow River Lumber Co., Calgary. Alta.
Eddy, George, Co., Ltd., Bathurst, N.B.
Edwards, W. C., & Co., Ltd., Ottawa, Ont.
Eliott, Jas. S., & Son, Prescott, Ont.
Empire Lumber Co., Ltd., The, Toronto, Ont.
Esplin, G. & J., Montreal, Que.
Evans Co., Ltd., The, Sudbury, Ont.
Fenderson, John, & Co., Incorporated, Sayabec, Que.
Foster, Clement A., Haileybury, Ont.
Fraser's Ltd., Fredericton, N.B.
Fraser, D. R., & Co., Ltd., Edmonton, Alta.
Fort Frances Sash & Door Co., Fort Frances, Ont.
Fox & Co., Toronto, Ont.
Galbraith & Sons, New Westminster, B.C.
Gardiner, P. W. & Son, Galt, Ont.
Georgian Bay Shook Mills, Ltd., Midland, Ont.
Gibson, McCormack, Irvin Co., Ltd., West Toronto, Ont.
Gignac, Napoleon, Quebec, Que.
Gignac, J. H., Ltd., Quebec, Que.
Gilchrist, John C., Toronto, Ont.
Globe Lumber Co., Calgary, Alta.
Gosselin, J. A., La Compagnie, Drummondville, Que.
Grant, John J., New Glasgow, N.S.
Graton, J. B., Limitee, Montreal, Que.
Gravel, The A., Lumber Co., Ltd., Etchemin Bridge, Que.
Graves, Bigwood & Co., Toronto, Ont.
Haley Bros., & Co., St. John, N.B.
Haley & Son, St. Stephen, N.B.
Hall Mfg. Co., Ltd., Summerside, P.E.I.
Hanbury Mfg. Co., Ltd., Brandon, Man.
Hanbury, J. & Co., Ltd., Vancouver, B. C.
Hancock, T. H., Toronto, Ont.
Harquail, J. & D. A., Co., Lt., Campbellton, N.B.
Harrison, John & Sons, Co., Ltd., Owen Sound, Ont.
Hastings Shingle Mfg. Co., Ltd., The, Vancouver, B.C.
Hawkesbury Lumber Co., The, Hawkesbury, Ont.
Hesson, W. J., & Co., Sault Ste. Marie, Ont.
Hilyard Bros., St. John, N.B.
Holton Lumber Co., Ltd., Belleville, Ont.
Hood, W. J., Winnipeg, Man.
Ideal Sash, Door & Mfg. Co., Ltd., Montreal.
Kaufman, Jacob, Berlin, Ont.
Kirk, D. G., Woodworking & Contracting Co., Antigonish, N.S.
Knight Bros. Co., Ltd., The, Burk's Falls, Ont.
Kribs, W. A., Hespeler, Ont.
Laidlaw, The R. Lumber Co., Ltd., Toronto,
Laird Bros., Dresden, Ont.
Lalonde Damien, Montreal, Que.
Murray & Gregory, Ltd., St. John, N.B.
Muskoka Wood Mfg. Co., Ltd., The, Huntsville, Ont.
Nagle & Mills, Ingersoll, Ont.
Nelson & Foster, Winnipeg, Man.
Nesbitt, E. T., Quebec, Que.
Neville, Robt., Jr., Montreal, Que.
New Ladysmith Lumber Co., Ltd., Nanaimo, B.C.
Nicolet Falls Pulp & Lumber, Nicolet Falls, Que.
Northern Planing Mills, Ltd., Saskatoon, Sask.
Ottawa Stair Works, Ottawa, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Parry Sound Lumber Co., Ltd., Toronto, Ont.
Patterson-Tilley Co., The, Hamilton, Ont.
Pauze, The U. & Fils, Co., Montreal, Que.
Pearce Co., Ltd., The, Marmora, Ont.
Pembroke Lumber Co., The, Pembroke, Ont.
Peterborough Lumber Cor., Ltd., The, Peterborough, Ont.
Pigeon River Lumber Co., Port Arthur, Ont.
Porto Rico Lumber Co., Ltd., Moyie, B.C.
Powell Lumber & Door Co., Toronto, Ont.
Pringle Co., The, Belleville, Ont.
Quance Bros., Delhi, Ont.
Rainy River Lumber Co.,Rainy River, Ont.
Rastall, R. A. & Co., Toronto, Ont.
Rat Portage Lumber Co., Ltd., Kenora, Ont.

Rathbone, Geo., Ltd., Toronto, Ont.
Rathbun Co., The, Deseronto, Ont.
Reliance Sash & Door Co., Vancouver, B.C.
Rhodes, Curry Co., Ltd., Amherst, N.S.
Risteen, J. C. & Co., Ltd., Fredericton, N.B.
Riverside Lumber Co., Ltd., Calgary, Alta.
Rixon Ainslie Stoddart Co., Ltd., Owen Sound, Ont.
Robertson & Hackett, Vancouver, B.C.
Rudd, S. R., Arnprior, Ont.
Rutherford, The Wm. & Sons, Co., Ltd., Montreal, Que.
Saint Maurice Lumber Co., Three Rivers, Que.
Lambert, A. G., & Co., Montreal, Que.
Lawrence, W. F. & Sons, Sarnia, Ont.
Lea Pull Co., Ltd., Moncton, N.B.
Leduc & Fortin, Beauharnois, Que
Leigh, Jas. & Sons, Victoria, B.C.
Lemon, Gonnason & Co., Victoria, B. C.
Lethbridge Sash & Door Mfg. Co., Ltd., Lethbridge, Alta.
Ludlam-Ainslie Lumber Co., Ltd., Hamilton, Ont.
Martin, W. J. & Co., Hillsdale, Ont.
MacInnes, John & Son, Ltd., Halifax, N:S.
Matthews Sash & Door Co., Fort William, Ont.
McArthur, J. D. Co., Winnipeg, Man.
McAuliffe, Davis, Lumber Co., Ltd., The, Ottawa, Ont.
McCamus & McKelvie, New Liskeard, Ont.
McDonald, Rowe Woodworking Co., Charlottetown, P.E.I.
McDiarmid & Clark, Brandon, Man.
McFarlane, R., & Co., Ltd., Montreal, Que.
McGibbon, F. & Sons, Sarnia, Ont.
McLaren Lumber Co., Ltd., Brockville, Ont.
McLennan Lumber Co., Ltd., Montreal, Que.
Mickle, Dyment Co., Ltd., The, Barrie, Ont.
Miles, G., Toronto, Ont.
Mills, A. D., & Sons, Ltd., Annapolis Royal, N.S.
Montgomery & Sons, Ltd., New Richmond, Que.
Moore, Moulthrop & Co., Ltd., Cartier, Ont.
Moore, Whittington Lumber Co., Ltd., Victoria, B. C.
Moore & McDonald, Blind River, Ont.
Moose Jaw Sash & Door Mfg. Co., Moose Jaw, Sask.
Morin, L. P., & Fils, St. Hyacinthe, Que.
Sarassin Napoleon & Fils, Ltd., Montreal, Que.
Sash & Door Mfg. Co., Three Rivers, Que.
Schultz Bros. Co., Ltd., Brantford, Ont.
Schurman, M. F., Co., Ltd., Summerside, P.E.I.
Scotia Woodworkers, Ltd ,Oxford, N.S.
Scott, The J. C. Co., Ltd., Toronto, Ont.
Shearer, The, Jas. Co., Ltd., Montreal, Que.
Sheppard, Jas. & Son, Sorel, Que.
Shier, The J. D. Lumber Co., Ltd., Bracebridge, Ont.
Smith, John B. & Sons, Toronto, Ont.
Snowball, The J. B. Co., Ltd., Chatham, N.B.
Spencer Bros. & Turner, Ltd., Truro, N.S.
Sprague Lumber Co., Ltd., Winnipeg, Man.
Sparwood Lumber Co., Ltd., Sparwood, B.C.
Spanish River Lumber Co., Ltd., Massey, Ont.
Springhill Mfg. Co., Springhill, N.S.
Stewart, Robt., Ltd., Guelph, Ont.
Stewart, Walter & Son, Lucknow, Ont.
Telfer Bros., Ltd., Bridgewater, N.S.
Terminal Lumber & Shingle Co., Ltd., Vancouver, B.C.
Tremblay, F., & Co., Montreal, Que.
Swanson Bay Forest Wood Pulp Lumber Mills, Ltd., Swanson Bay, B.C.
Swedish Canadian Lumber Co., Ltd., Nordin, N.B.
Templin Mfg. Co., The, Fergus, Ont.
Terminal Construction & Mfg. Co., Ltd., Vancouver, B.C.
Tobin Mfg. Co., Bromptonville, Que.
Traversey, V. E., Montreal, Que.
Trois Pistoles Pulp & Lumber Co., Trois Pistoles, Que.
Truax, R. & Son, Walkerton, Ont.
Victor Wood Works, Ltd., The Amherst, N.S.
Villeneue et Cie, St. Jerome, Que.
Villeneuve, L. et. Cie., Ltd., Montreal, Que.
Walsh Sash & Door Co., New Westminster, B.C.
Walton, Geo. & Co., Ltd., Belleville, Ont.
Watson-Smith Co., Ltd., The, Toronto, Ont.
Wattsburg Lumber Co., The, Wattsburg, B.C.
Western Mfg. Co., Ltd., Regina, Sask.
Western Planing Mills, Co., Ltd., The, Calgary, Alta.
Westport Wood Working Co., Ltd., Westport, Ont.
Williamson, Wm., Toronto, Ont.
Wilson Bros., Ltd., Collingwood, Ont.
Winnipeg Paint & Glass Co., Ltd., Winnipeg, Man.
Wise, Henry, St. Catharines, Ont.
Woodworkers, Ltd., Victoria, B. C.
Woodstock Woodworking Co., Ltd., Woodstock, N.B.
Yahk Lumber Co., Ltd., Yahk, B.C.

PLANTERS, Corn.

Aspinwall Mfg. Co., Guelph, Ont.
Cossitt Co., Ltd., The, Brockville, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Vilas, W. F., Cowansville, Que.
Westport Woodworking Co., Ltd., Westport, Ont.

PLANTERS, Potato

Aspinwall Mfg. Co., Guelph, Ont.
Bateman-Wilkinson Co., Ltd., Toronto, Ont.
Canadian Potato Machinery Co., Ltd., The, Galt, Ont.

PLASTER, Casting and Dental.

Albert Mfg. Co., Hillsborough, N.B.
Crown Gypsum Co., Ltd., Lythmore, Ont.
Great Northern Mining & Railway Co., Ltd., Eastern Harbor, N.S.

PLASTER, Cement Wall.

Alabastine Co., Paris, Ltd., The, Paris, Ont.
Crown Gypsum Co., Ltd., Lythmore, Ont.
Dominion Gypsum Co., Ltd., Winnipeg, Man.

PLASTER, Finishing.

Alabastine Co., Paris, Ltd., The, Paris, Ont.
Crown Gypsum Co., Ltd., Lythmore, Ont.

PLASTER OF PARIS.—Gypsum, or sulphate of lime from which the water has been driven off by heat. When water is added to it it again sets hard, and on this account it is used for making casts and for plastering purposes.

PLASTER (Land), PLASTER OF PARIS, and HARD WALL PLASTER.

Alabastine Co., Paris, Ltd., The, Paris, Ont.
Albert Mfg. Co., Hillsborough, N.B.
Bremner, Alexander Ltd., Montreal, Que.
Crown Gypsum Co., Ltd., Lythmore, Ont.
Dominion Gypsum Co., Ltd., Winnipeg, Man.
Great Northern Mining & Railway Co., Ltd., Eastern Harbor, N.S.
Hyde & Sons, Ltd., Montreal.
Manitoba Gypsum Co., Ltd., Winnipeg, Man.
Newport Plaster Mining & Mfg. Co., Windsor, N.S.
Windsor Plaster Co., Ltd., Windsor, N.S.
Wright & Co., Inc., Hull, Que.

PLASTER, Wood Fibre.

Alabastine Co., Paris, Ltd., The, Paris, Ont.
Crown Gypsum Co., Ltd., Lythmore, Ont.
Dominion Gypsum Co., Ltd., Winnipeg, Man.
Manitoba Gypsum Co., Ltd., Winnipeg, Man.

PLASTERBOARD.

Crown Gypsum Co., Ltd., Lythmore, Ont.
Manitoba Gypsum Co., Ltd., Winnipeg, Man.

PLATED GOODS.—Various alloys or metal made into forks, spoons, ornaments, &c., are covered with a coating of silver or gold. The process now most commonly employed is a bath containing a weak solution of cyanide of silver in cyanide of potassium through which a galvanic current is made to pass from a positive electrode consisting of a plate of silver. Small objects can be coated by immersing them in a bath of cyanide of potassium and silver kept at boiling point. Formerly other processes were used, of which the best was that in which a sheet of silver was welded on to a sheet of base metal. Ornamental articles are often coated with an amalgam of quicksilver, and the quicksilver is driven off by heat.

PLATE, Steel.

MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.
Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Peck Rolling Mills, Ltd., The, Montreal, Que.
Portland Rolling Mills, Ltd., St. John, N.B.
Structural Steel Co., Ltd., Montreal, Que.
Western Steel & Iron Co., Ltd., Winnipeg, Man.
Westport Mfg. & Plating Co., Ltd., Westport, Ont.

PLATERS, Brass, Copper & Nickel.

Bowmanville Foundry Co., Ltd., Bowmanville, Ont.
Cleal, Jos. P., Toronto, Ont.
Cummings Brass, Iron & Wire Co., Ltd., Winnipeg, Man.
Cuthbert, W. R. & Co., Montreal, Que.
Denton, J. B., & Co., Woodstock, Ont.
Edmunds, J. H., & Co., Toronto, Ont.
Electric Meter & Stamping Co., Ltd., The, New Hamburg, Ont.
Garth Company, The, Montreal, Que.
Granby Hardware Mfg. Co., Granby, Que.
Hutchison & Sticht, Montreal, Que.
Kinzinger, Bruce & Co., Ltd., Niagara Falls, Ont.
Lee Mfg. Co., Ltd., Pembroke, Ont.
National Hardware Co., Ltd., Orillia, Ont.
Pearce, Henry, Montreal, Que.
Riordon Plating Works, Hamilton, Ont.
Steel Equipment Co., Ltd., Ottawa, Ont.
Stratford Brass Co., Ltd., The, Stratford, Ont
United Brass & Lead, Ltd., Toronto, Ont.
Whaley, Royce & Co., Ltd., Toronto, Ont.

PLATERS, Gold and Silver.

Pearce, Henry, Montreal, Que.
Whaley, Royce & Co., Ltd., Toronto, Ont.

PLATERS' SUPPLIES.

Canadian Hanson & Van Winkle Co., Ltd., Toronto, Ont.
Wells, W. W., Toronto, Ont.

PLATES, Amalgamating, Mining.

Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.

PLATES, Fish and Railway Tie.

Coghlin, B. J., Co., Ltd., Montreal, Que.
Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Portland Rolling Mills, Ltd., St. John, N.B.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.

PLATES, Key-hole, Letter-box, Name, Newspaper, Pull, Push and Sash.

Barnard, H., Co., Ltd., Hamilton, Ont.
Belleville Hardware & Lock Mfg. Co., Ltd., Belleville, Ont.
Electric Meter & Stamping Co., Ltd., The, New Hamburg, Ont.
Hamilton Pattern Works, The, Hamilton, Ont.
Hamilton Stamp & Stencil Works, Ltd., Hamilton, Ont.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Meadows, George B., Wire, Iron & Brass Works Co., Ltd., The, Toronto, Ont.
Mitchell, The Robert, Co., Ltd., Montreal, Que.
Morrison, The James, Brass Mfg. Co., Ltd., Toronto, Ont.
Patterson & Heward, Toronto, Ont.
Peterborough Lock Mfg. Co., Ltd., The, Peterborough, Ont.
Tallman Brass & Metal Co., Hamilton, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
Toronto Stamp & Stencil Works, Ltd., Toronto, Ont.
Walker & Campbell, Montreal, Que.

PLATE GLASS.—Plate glass is formed by pouring liquid glass on to a table surrounded by a raised rim. It is then ground down with sand and polished, losing about half its weight. A large quantity is made in Belgium.

PLATINUM.—A somewhat rare metal which generally occurs in the native state and alloyed with iridium, osmium, and other rare metals. Platinum is exceedingly malleable and ductile, has a very high fusing point, and cannot be dissolved by any single acid, but only by aqua regia. These properties render it suitable for crucibles, and it is also used to a limited extent in jewellery and for tipping gold pens. The tetrachloride is employed in chemical analysis.

PLATINUM.

Goldsmith Brothers Smelting & Refining Co., Ltd., Toronto, Ont.
National Refining Co., Ltd., Toronto, Ont.

PLAYER ORGANS.

Sherlock-Manning Piano & Organ Co., Ltd., London, Ont.

PLAYER-PIANO MUSIC ROLLS.

Perforated Music Co., of Canada, The, Toronto.

PLAYER PIANOS.

Amherst Pianos, Ltd., Amherst, N.S.
Bell Piano & Organ Co., Ltd., Guelph, Ont.
Craig Piano Co., The, Montreal, Que.
Doherty, W., Piano & Organ Co., Ltd., Clinton, Ont.
Dominion Organ & Piano Co., Ltd., The, Bowmanville, Ont.
Evans Brothers Piano & Mfg. Co., Ltd., Ingersoll, Ont.
Gourlay, Winter & Leeming, Toronto, Ont.
Heintzman, Gerhard, Ltd., Toronto, Ont.
Heintzman & Co., Ltd., Toronto, Ont.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
Martin-Orme Piano Co., Ltd., The, Ottawa, Ont.
Senecal & Quidez, Ste. Therese, Que.
Sherlock-Manning Piano & Organ Co., Ltd., London, Ont.
Stanley Piano Co., Toronto, Ont.
Williams Piano Co., Ltd., The, Oshawa, Ont.
Willis Piano Co., Ltd., Montreal, Que.
Wormwith Piano Co., Ltd., The, Kingston, Ont.
Wright Piano Co., Ltd., The, Strathroy, Ont.

PLOW POINTS.

Dick, William, Bolton, Ont.

PLOWS, Disc.

Bateman-Wilkinson Co., Ltd., Toronto, Ont.
Verity Plow Co., Ltd., Brantford, Ont.

PLOWS, Ditching, Rooter, Contractors', Road, Etc.

American Road Machine Co. of Canada, Ltd., Goderich, Ont.
Bateman-Wilkinson Co., Ltd., Toronto, Ont.
Dick, William, Bolton, Ont.
Verity Plow Co., Ltd., Brantford, Ont.

PLOWS, Double Mouldboard and Ridging.

Bell, B., & Son, Co., Ltd., St. George, Ont.

PLOWS, Drilling and Potato-digging.

Verity Plow Co., Ltd., Brantford, Ont.

PLOWS, Gang.

Belanger, A., Montmagny, Que.
Bell, B., & Son, Co., Ltd., St. George, Ont.
Bruce Agricultural Works, The, Teeswater, Ont.
Cockshutt Plow Co., Ltd., Brantford, Ont.
Fleury's, Jo., Sons, Aurora, Ont.
Hamilton, Peter, Co., Ltd., Peterborough, Ont.
Percival Plow & Stove Co., Ltd., Merrickville, Ont.
Shantz, P. E., Preston, Ont.
Tudhope-Anderson Co., Ltd., Orillia, Ont.
Verity Plow Co., Ltd., Brantford, Ont.
Vilas Plow Co., Ltd., Brantford, Ont.

PLOWS, Hillside.

Belanger, A., Montmagny, Que.
Bell, B., & Son Co., Ltd., St. George, Ont.
Bateman-Wilkinson Co., Ltd., Toronto, Ont.
Cockshutt Plow Co., Ltd., Brantford, Ont.
Percival Plow & Stove Co., Ltd., Merrickville, Ont.
Shantz, P. E., Preston, Ont.
Verity Plow Co., Ltd., Brantford, Ont.
Vilas, W. F., Cowansville, Que.

PLOWS, Road.

American Road Machine Co. of Canada, Ltd., Goderich, Ont.
Verity Plow Co., Ltd., Brantford, Ont.

PLOWS, Snow.

Crossen Car Co., Ltd., Cobourg, Ont.
Hamilton, Peter, Co., Ltd., Peterborough, Ont.
Montreal Locomotive Works, Ltd., Montreal.
Mowry & Sons, Gravenhurst, Ont.
Vilas, W. F., Cowansville, Que.

PLOWS, Sulky.

Belanger, A., Montmagny, Que.
Bell, B., & Son Co., Ltd., St. George, Ont.
Bruce Agricultural Works, The, Teeswater, Ont.
Cockshutt Plow Co., Ltd., Brantford, Ont.
Dick, Wm., Bolton, Ont.
Fleury's, J., Sons, Aurora, Ont.
Oliver Chilled Plow Works of Canada, Ltd., Hamilton, Ont.
Tudhope-Anderson Co., Ltd., Orillia, Ont.
Verity Plow Co., Ltd., Brantford, Ont.

PLOWS, Traction.

Cockshutt Plow Co., Ltd., Brantford, Ont.
Bruce Agricultural Works, The, Teeswater, Ont.
Savoie Guay, La Compagnie, Plessisville Station, Que.

PLOWS, Walking.

Bateman-Wilkinson Co., Ltd., Toronto, Ont.
Beauvais & Co., La Prairie, Que.
Belanger, A., Montmagny, Que.
Bell, B., & Son Co., Ltd., St. George, Ont.
Bruce Agricultural Works, The, Teeswater, Ont.
Cockshutt Plow Co., Ltd., Brantford, Ont.
Dick, Wm., Bolton, Ont.
Erie Iron Works, Ltd., St. Thomas, Ont.
Hamilton, Peter, Co., Ltd., Peterborough, Ont.
Hilborn Company, The, Ayr, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Percival Plow & Stove Co., Ltd., Merrickville, Ont.
Oliver Chilled Plow Works of Canada, Ltd., Hamilton, Ont.
Tudhope-Anderson Co., Ltd., Orillia, Ont.
Verity Plow Co., Ltd., Brantford, Ont.
Vilas, W. F., Cowansville, Que.

PLUGS, Fusible.

Canadian Detroit Lubricator Co., Ltd., Walkerville, Ont.
Morrison, The James, Brass Mfg. Co., Ltd., Toronto, Ont.

PLUGS, Paper Roll.

Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
Danville Mfg. Co., Ltd., Danville, Que.

PLUMBAGO. (See BLACK-LEAD).

PLUMBERS' SUPPLIES.

Bennett & Wright Co., Ltd., Toronto, Ont.
Canadian Brass Co., Ltd., Galt, Ont.
City Brass Works, Hamilton, Ont.
Colwell Lead Co., Windsor, Ont.
Cuthbert, W. R., & Co., Montreal, Que.
Empire Mfg. Co., Ltd., London, Ont.
Farquhar Bros., Ltd., Halifax, N.S.
Fiddes & Hogarth, Ltd., Toronto, Ont.
Garth Company, The, Montreal, Que.
Granby Hardware Mfg. Co., Granby, Que.
Hughes, J. W., & Son, Montreal, Que.
Imperial Mfg. Company, Welland, Ont.
Kinzinger, Bruce & Co., Ltd., Niagara Falls, Ont.
McAvity, T., & Sons, Ltd., St. John, N.B.
Mechanics Supply Co., Ltd., Quebec, Que.
Mitchell, The Robt., Co., Ltd., Montreal, Que.
Mueller, H., Mfg. Co., Ltd., Sarnia, Ont.
Purdy-Mansell, Ltd., Toronto, Ont.
Robertson, The James, Co., Ltd., Montreal, Que. and Toronto, Ont.
Standard Ideal Co., Ltd., Port Hope, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
Toronto Hardware Mfg. Co., The, Toronto, Ont.
United Brass & Lead, Ltd., Toronto, Ont.

PLUMBERS' SUPPLIES, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
Goodyear Tire & Rubber Co. of Canada, Ltd., Toronto, Ont.
Gutta Percha & Rubber, Ltd., Toronto, Ont.

PLUMS.—Plums either fresh or preserved in syrup are the object of a considerable trade. Among the best kinds are greengage, magnum bonum, damson, and the small round yellow wax plums. The American cherry plum, or myrobalan, is often cultivated in Europe. **(See also PRUNES).**

PLUSH.—A kind of cloth with a longer pile than velvet. It is generally made of silk, and is used for silk hats, ladies dress, and furniture coverings.

POCKET BOOKS, WALLETS, Etc.

Brown Bros., Ltd., Toronto, Ont.
General Leather Goods, Ltd., Toronto, Ont.
Sales, Julian, Leather Goods Co., Ltd., Toronto.
Standard Leather Goods, Ltd., Montreal, Que.
Western Leather Goods Co., Ltd., Toronto.
Winnett & Wellinger, Ltd., Toronto, Ont.

PODOPHYLLUM RESIN, the resin of a plant common in North America, and a native of the Himalayas, the latter yielding a larger quantity. The resin is an active cathartic.

POINTS, Drive Well.

McDougall, R., Co., Ltd., Galt, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.

POISONS, Rat and Mouse.

Common Sense Mfg. Co., Toronto, Ont.

POKES, Horse.

Still, J. H., Mfg. Co., Ltd., St. Thomas, Ont.

POLECAT, called also fitchet and foumart, an animal of the weasel tribe. The skin is sold in the north of Europe under the name of fitch, and is used as fur. The long black hairs make the best artists' brushes.

POLES, Carriage.

Ackland, D., & Son, Ltd., Winnipeg, Man.
Canada Wheel Works, Ltd., Merritton, Ont.
Finlay, J., & Sons Co., Norwood, Ont.
Heard, John, & Co., St. Thomas, Ont.
Hore, F. W., & Son, Ltd., Hamilton, Ont.
Windsor Turned Goods Co., Ltd., Windsor, Ont.

POLES, Carriage, (Ironed).

Victoria Wheel Works, Galt, Ont.
Windsor Turned Goods Co., Ltd., Windsor, Ont.

POLES, Curtain.

Canada Wood Specialty Co., Ltd., Orillia, Ont.
Hees, Geo. H., & Co., Ltd., Toronto, Ont.
Muskoka Wood Mfg. Co., Ltd., Huntsville, Ont.
Reliance Moulding Co., Ltd., Toronto, Ont.
Soper, The Fred. G. Co., Toronto, Ont.

POLES, Electric Light, Telegraph and Telephone.

Columbia River Lumber Co., Ltd., Golden, B.C.
Crockett, Thos., Riviere du Loup, Que.
East Kootenay Lumber Co., Ltd., Jaffray, B.C.
Elk Lumber Co., Ltd., The, Fernie, B.C.
Fenderson, John & Co., Inc., Sayabec, Que.
Fernie Lumber Co., Ltd., Fernie, B.C.
Harrison, John, & Sons, Co., Ltd., Owen Sound, Ont.
Keenan Bros., Ltd., Owen Sound, Ont.
Lindsley Bros. & Co., Nakusp, B.C.
Pearce Co., Ltd., The, Marmora, Ont.
Rathbun Company, The, Deseronto, Ont.
Rat Portage Lumber Co., Ltd., The, Kenora, Ont.
Shives Lumber Co., Ltd., Campbellton, N.B.
White, Chas. T., & Son, Ltd., Sussex, N.B.

POLES, Flag. (See Flag Poles.)

POLES, Pike. (See Pike Poles.)

POLISH, Floor and Woodwork.

Carbon Oil Works, Ltd., Winnipeg, Man.
Domestic Specialty Co., Ltd., Hamilton, Ont.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.

POLISH, Furniture..

Alpha Chemical Co., Ltd., The, Berlin, Ont.
British-American Oil Co., Ltd., Toronto, Ont.
Buffalo Specialty Co., Bridgeburg, Ont.
Domestic Specialty Co., Ltd., Hamilton, Ont.
Frasier, Thornton Co., Ltd., Cookshire, Que.
Hugman, A. W., Ltd., Montreal, Que.
Parker Whyte, Ltd., Winnipeg, Man.
Permanent Ink Co., Ltd., Hamilton, Ont.
Royal Polishes Co., Montreal, Que.

POLISH, Metal.

Alpha Chemical Co., Ltd., The, Berlin, Ont.
British-American Oil Co., Ltd., Toronto, Ont.
British Columbia Refining Co., Ltd., Vancouver, B.C.
Bull, John, Mfg. Co., Hamilton, Ont.
Commercial Oil Co., Ltd., Hamilton, Ont.
Crescent Oil Refining Co., Ltd., The, Hamilton, Ont.
Crown Oil Refining Co., Ltd., Hamilton, Ont.
Domestic Specialty Co., Ltd., Hamilton, Ont.
Excel Mfg. Co., Ltd., Montreal, Que.
Forbes & Nadeau, Montreal, Que.
Hugman, A. W., Ltd., Montreal, Que.
Lawrason, S. F., & Co., London, Ont.
Masse Industrial Co., The, Windsor, Ont.
McColl Bros. & Co., Toronto, Ont.
Metropolitan Oil Co., Toronto, Ont.
Moore, Benjamin, & Co., Ltd., Toronto, Ont.
Nonsuch Mfg. Co., Ltd., The, Toronto, Ont.
Ontario Lubricating Co., Ltd., Hamilton, Ont.
Parker Whyte, Ltd., Winnipeg, Man.
Permanent Ink Co., Ltd., Hamilton, Ont.
Ralston, Robert, & Co., Hamilton, Ont.
Royal Polishes Co., Montreal, Que.
Sapho Mfg. Co., Ltd., Montreal, Que.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.
Sterne, G. F., & Sons, Brahtford, Ont.
Stuart & Foster, Ltd., Toronto, Ont.
Sultana, Ltd., Montreal, Que.
Victorine, Ltd., Montreal, Que.
Wells, W. W., Toronto, Ont.
William Co., Ltd., Montreal, Que.

POLISH, Shoe and Leather.

Bull, John, Mfg. Co., Hamilton, Ont.
Dalley, F. F., Co., of Hamilton, Ltd., The, Hamilton, Ont.
Domestic Specialty Co., Ltd., Hamilton, Ont.
Everett & Barron Co., Amherst, N.S.
Excel Mfg. Co., Ltd., Montreal, Que.
Frasier, Thornton Co., Ltd., Cookshire, Que.
Jonas, Henri & Co., Montreal, Que.
Masse Industrial Co., The, Windsor, Ont.
Nonsuch Mfg. Co., Ltd., The, Toronto, Ont.
Permanent Ink Co., Ltd., Hamilton, Ont.
Ralston, Robert, & Co., Hamilton, Ont.
Richardson Mfg. Co., Hamilton, Ont.
Sultana, Ltd., Montreal, Que.

POLISH, Silver.

Domestic Specialty Co., Ltd., Hamilton, Ont.
Royal Polishes Co., Montreal, Que.

POLISH, Stove.

Alpha Chemical Co., Ltd., The, Berlin, Ont.
Bull, John, Mfg. Co., Hamilton, Ont.
Dalley, F. F., Co. of Hamilton, Ltd., Hamilton, Ont.
Domestic Specialty Co., Ltd., Hamilton, Ont.
Excel Mfg. Co., Ltd., Montreal, Que.
Fraser, Thornton & Co., Ltd., Hamilton, Ont.
Masse Industrial Co., The, Windsor, Ont.
Nonsuch Mfg. Co., Ltd., Toronto, Ont.
Permanent Ink Co., Ltd., Hamilton, Ont.
Richardson Mfg. Co., Hamilton, Ont.
Ralston, Robert & Co., Hamilton, Ont.
Sapho Mfg. Co., Ltd., Montreal, Que.
Sterne, G. F. & Sons, Brantford, Ont.
Sultana, Ltd., Montreal, Que.
Tellier, Rothwell & Co., Montreal, Que.

POLISHERS, Floor, Electric.

Fisher Electric & Mfg. Co., Ltd., Toronto, Ont.

POLISHING COMPOUNDS.

Canadian Hanson & Van Winkle Co., Ltd., Toronto, Ont.
Wells, W. W., Toronto, Ont.

POLLARD, or Sharps. Fine bran or husk of wheat.

POMEGRANATE, the fruit of a low tree cultivated in the south of Europe, North Africa, and the warmer parts of Asia. A small quantity is exported to northern countries. The bark is used for tanning.

POMELO. (See **SHADDOCK**).

PONGEE, a washing silk woven in Shantung, China, from the silk of the ailanthus silkworm.

POONAC, a refuse cake left after pressing the oil out of coco-nut kernels. It is used for manure and feeding cattle.

POONGA OIL, or Kurunj. A fixed oil obtained from Dalbergia arborea, regarded in India as a remedy for skin diseases.

POPCORN.

Canadian Chicle Co., Ltd., Peterborough, Ont.
Lauder, The Charles, Co., Toronto, Ont.
O-Pee-Chee Gum Co., The, London, Ont.

POPLAR, the most important Canadian varieties are balm poplar or balm of Gilead and aspen. It is used chiefly for pulp, but a small quantity of balm poplar is cut into lumber for rough box-work and slack cooperage. The supply in Canada is enormous. **(See WOOD).**

POPLINS, cloth woven with a tight welt and a loose warp, so that the latter completely covers the former. Poplins are made of wool, a mixture of silk and wool, and cotton. They are manufactured at Lyons, at Roubaix, and other towns in the north of France, and in Ireland.

POPPERS, Corn.

Fletcher Mfg. Co., Ltd., Toronto, Ont.

POPPY.—The most important species is the White Poppy, from which opium is made. The heads also are sold for use in pharmacy. Poppies are cultivated in France, Belgium, and Germany, and the oil from their seeds is used in cookery, and by painters and soap-boilers. Opium is also extracted from the Oriental poppy, which has bright red flowers.

PORCELAIN. (See POTTERY).

PORCUPINE.—The quills of the common porcupine are used for penholers, and in fancy work. Some are exported from the Guinea coast.

PORCUPINE WOOD, the outer, harder wood of the trunk of the cocoanut.

PORK. (See HOGS).

PORK AND BEANS, Canned.

British Canadian Canners, Ltd., Hamilton, Ont.
Clark, W., Montreal, Que.
Clark, J. Sutton, Ltd., St. George, N.B.
Heinz, H. J., Co., Leamington, Ont.
London Canning Co., The, London, Ont.
Ontario Canners, Ltd., Sarnia, Ont.

PORK AND PORK PRODUCTS.

Ames, Alexander & Sons, Sherbrooke, Que.
Burns, P. & Co., Ltd., Calgary, Alta.
Coleman, H., Kincardine, Ont.
Collingwood Packing Co., Ltd., Collingwood, Ont.
Davies, The Wm. Co., Ltd., Toronto, Ont.
Davis & Fraser, Halifax, N.S.
Dominion Abattoir, Ltd., London, Ont.
Dumart Brothers, Berlin, Ont.
Fearman, F. W. Co., Ltd., Hamilton, Ont.
Fowler's Canadian Co., Ltd., Hamilton, Ont.
Gallagher, Holman, Lafranc Co., Ltd., Winnipeg, Man.
Gainers Ltd., Strathcona, Alta.
Gordon, Ironside & Fares Co., Ltd., Winnipeg, Man.
Gunn's Ltd., Toronto, Ont.
Hovey Brothers & Co., Sherbrooke, Que.
Imperial Packing Co., Ltd., Woodstock, N.B.
Ingersoll Packing Co., Ltd., Ingersoll, Ont.
Lambton Packing Co., Ltd., Petrolia, Ont.
Lilley & Sons, St. John, N.B.
Masterman Packing & Provision Co., Montreal,
Matthews-Blackwell, Ltd., Montreal, Que.
Montreal Abattoirs, Ltd., Montreal, Que.
Moyer & Sons, St. Catharines, Ont.
O'Keefe & Drew Abattoir Co., Ltd., Chatham, Ont.
Puddy Bros., Ltd., The, Toronto, Ont.
Russell, Baker Packing Co., Prince Albert, Sask.
Ruthman, R. & Son, Quebec, Que.
Ryan, Wm. Co., Ltd., Toronto, Ont.
Slipp & Flewelling, St. John, N.B.
St. Thomas Packing Co., Ltd., The, St. Thomas, Ont.
Swift Canadian Co., Ltd., West Toronto, Ont.
Tillsonburg Packing Co., Tillsonburg, Ont.
Vogel Meat & Packing Co., Ltd., Strathcona, Alta.
Western Packing Co. of Canada, Ltd., Winnipeg, Man.
Wight, W. & Co., Toronto, Ont.

PORPOISE, a genus of dolphins. The common porpoise is found on all the coasts of Europe and North America and in the Arctic regions. Oil of fine quality is obtained from the layer of fat beneath the skin, and the latter makes excellent leather. Much so-called porpoise leather is, however, obtained from the Beluga, or White Whale, of which many skins are sent to Europe by the Hudson Bay Company.

PORT, a heavy red wine named from Oporto in Portugal, and grown in the Cima de Douro. About 10800 gallons are exported annually from Lisbon and Oporto.

PORTER, a dark brown beer brewed from amber malt, with a small admixture of brown malt. The colour is rendered deeper by the addition of liquorice and caramel. Stout is merely a stout, or strong, porter.

PORTER.

Blackwoods, Ltd., The, Winnipeg, Man.
Bowie & Co.'s Brewery, Ltd., Brockville, Ont.
Brading Brewing Co., Ltd., Ottawa, Ont.
Brandon Brewing Co., Ltd., Brandon, Man.
Brasserie Champlain, Ltd., La, Quebec, Que.
British American Brewing Co., Ltd., Windsor, Ont.
British Columbia Breweries, Ltd., Vancouver, B.C.
Calcutt Brewing & Malting Co., Ltd., Peterborough, Ont.
Calgary Brewing & Malting Co., Ltd., Calgary, Alta.
Carling Brewing & Malting Co. of London, Ltd., London, Ont.
Copland Brewing Co., Ltd., Toronto, Ont.
Cosgrave Brewery Co., of Toronto, Ltd., Toronto, Ont.
Devlin, Felix, Stratford, Ont.
Dominion Brewery Co., Ltd., Toronto, Ont.
Drewery, Edward L., Ltd., Winnipeg, Man.
Edmonton Brewing & Malting Co., Ltd., Edmonton, Alta.
Empire Brewing Co., Ltd., Brandon, Man.
Enterprise Brewing Co., Ltd., Revelstoke, B.C.
Fernie-Fort Steele Brewing Co., Ltd., Fernie, B.C.
Golden West Brewing Co., Ltd., Calgary, Alta.
Golden Lion Brewing Co., Ltd., Prince Albert, Sask.
Gold Lion Brewery, Limited, Valleyfield, Que.
Grant's Spring Brewery Co., Ltd., Hamilton, Ont.
Hamilton Brewing Association, Ltd., Hamilton, Ont.
Halifax Breweries, Ltd., Halifax, N.S.
Hoeschen-Wentzler Brewing Co., Ltd., Saskatoon, Sask.
Holliday Brothers, Guelph, Ont.
Jones, Simeon, Ltd., St. John, N.B.
Kormann Brewery, Toronto, Ont.
Huntz Brewery, Ltd., Waterloo, Ont.
Labatt, John, Ltd., London, Ont.
Lethbridge Brewing & Malting Co., Ltd., The, Lethbridge, Alta.
McCarthy, J., & Sons, Ltd., Prescott, Ont.
McDonagh & Shea, Winnipeg, Man.
Molson's Brewery, Ltd., Montreal, Que.
National Breweries, Ltd., The, Montreal, Que.
Nelson Brewing Co., Ltd., Nelson, B.C.

O'Keefe Brewery Co. of Toronto, Ltd., Toronto.
Oland & Son, Halifax, N.S.
Phoenix Brewing Co., Ltd., Phoenix, B.C.
Reinhardt Salvador Brewery, Ltd., Toronto,
Riedle, A. W., Winnipeg, Man.
Silver Spring Brewing Co., Ltd., The, Victoria, B.C.
Strathcona Brewing & Malting Co., Ltd., Edmonton South, Alta.
Sleeman & Sons, Ltd., Guelph, Ont.
St. Lawrence Brewery, Ltd., Cornwall, Ont.
Silver Spring Brewery, Ltd., The, Sherbrooke, Que.
Soo Falls Brewing Co., Ltd., Sault Ste. Marie, Ont.
Strathcona Brewing & Malting Co., Ltd., Edmonton, South, Alta.
Taylor & Bate, St. Catharines, Ont.
Victoria Phoenix Brewing Co., Ltd., Victoria, B.C.
Walkerville Brewing Co., Ltd., The, Walkerville, Ont.
Westminster Brewery, New Westminster, B.C.

POST CARDS, Picture.

Pugh Specialty Co., Ltd., Toronto, Ont.
Warwick Brothers & Rutter, Ltd., Toronto.

POSTERS.

Atlantic Lithographing Co., St. John, N.B.
Benallack Litho. & Printing Co., Ltd., Montreal, Que.
Consolidated Litho. & Mfg. Co., Ltd., Montreal.
Don Valley Paper Co., Ltd., Toronto, Ont.
Duncan Lithographing Co., Ltd., Hamilton, Ont.
Hough Lithographing Co., Ltd., Toronto, Ont.
Howell Lithographic Co., Ltd., Hamilton, Ont.
Johnston, W. S., & Co., Toronto, Ont.
Laidlaw Litho. Co., Ltd., Hamilton, Ont.
London Printing & Litho. Co., Ltd., London, Ont.
National Printing Co., The, Montreal, Que.
Reid Press, Ltd., The, Hamilton, Ont.
Rolph & Clark, Ltd., Toronto, Ont.
Stone, Ltd., Toronto, Ont.

POSTS, Cedar.

Austin & Nicholson, Chapleau, Ont.
Cascapedia Mfg. & Trading Co., Chaleurs, Que.
Columbia River Lumber Co., Ltd., Golden, B.C.
Crockett, Thos., Riviere du Loup Station, Que.
Cushing Bros. Co., Ltd., Calgary, Alta.
East Kooteny Lumber Co., Ltd., Jaffray, B.C..
Elk Lumber Co., Ltd., The, Fernie, B.C.
Fernie Lumber Co., Ltd., Fernie, B.C.
Grier, G. A., & Sons, Ltd., Montreal, Que.
Hancock, T. H., Toronto, Ont.
Harrison, John & Sons Co., Ltd., Owen Sound, Ont.
Hickman, C. P., Dorchester, N.B.
Johnston, Hunter & Crawford, Wiarton, Ont.
Joly de Lotbiniere, A., Leclercville, Que.
Keenan Bros., Ltd., Owen Sound, Ont.
Laking, The Wm., Lumber Co., Toronto, Ont.
Manitoulin Lumber Co., Ltd., Walkerville, Ont.
Metis Lumber Co., The, Price, Que.
Murray & Gregory, Ltd., St. John, N.B.
Pearce Co., Ltd., The, Marmora, Ont.
Piggott, John & Sons, Chatham, Ont.
Rastall, R. A., & Co., Toronto, Ont.
Rathbun Co., The, Deseronto, Ont.
Rat Portage Lumber Co., Ltd., Kenora, Ont.
Rixon, Ainslie & Stoddart Co., Ltd., Owen Sound, Ont.
Swedish Canadian Lumber Co., Ltd., Nordin, N.B.
Wolverine Cedar & Lumber Co., Ltd., Webbwood, Ont.

POSTS, Iron.

Alberta Ornamental Iron Co., Ltd., Redcliff, Alta.
Brandon Machine & Implement Works, Brandon, Man.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Hamilton, Wm. & Co., Ltd., Peterborough, Ont.
McAvity, T., & Sons, Ltd., St. John, N.B.
McGregor & McIntyre, Ltd., Toronto, Ont.
Munro Steel & Wire Works, Ltd., Winnipeg, Man.
Reid & Brown, Toronto, Ont.
Standard Foundry & Machine Co., Longueuil, Que.
Westminster Iron Works, New Westminster, B.C.

POSTS, Steel, Fence.

Anthony Wire Fence Co., of Canada, Ltd., Wallaceburg, Ont.
Munro Steel & Wire Works, Ltd., Winnipeg, Man.
Standard Wire Fence Co., of Woodstock, Ltd., Woodstock, Ont.

POTASH.—Chemically this word denotes the hydrated oxide of potassium. In commerce it is applied to the rough carbonate of potash obtained by burning wood and plants and then boiling the ashes. When refined it is often called pearl ash. Potash is also obtained in Germany from the chlorides of the Stassfurt mines, and from minerals in France and England. Beet sugar ash and wool scourings, or suint, are also a source of supply. Potash is used as a cleansing agent, as a chemical reagent, and in manufacture of soap and glass.

POTASH.

Dominion Sugar Co., Ltd., Wallaceburg, Ont.

POTASSIUM.—Besides potash, the bicarbonate of potash, bromide, chlorate, permanganate, sulphate, iodide, &c., are manufactured and sold. Chlorate of potash is employed in the manufacture of matches. A solution of the hypochlorite is sold as a bleaching agent under the name of Eau de Javelle. The sulphate is used as manure, and the chromate and bichromate in calico-printing. The bromide and iodide are used in photography, and, as well as other salts of potassium, in medicine. Until the discovery of the rich strassfurt potash salts, potassium as largely extracted from hardwood ashes of which Canada was the principal producer, but of late years the production of potassium for all purposes was almost wholly confined to Germany, which in 1913 produced a total of 11,607,510 metric tons of crude salts, from which the following quantities of the different products were also produced in Germany:—

	Metric Tons.
Potash Manure Salts, 20, 30 and 40 p.c.	906,212
Chloride of Potash 80 p.c...	484,254
Sulphate of Potash, 90 p.c.	110,703
Sulphate of Potash Magnesia Calcined, 48 p.c.....	58,268
Potash Manure Salts, 38 p.c.	50,393
Kieserite in Lumps..	36,708
Kieserite calcine and ground	1,165
Sulphate of Potash, Magnesia Crystallized, 40 p.c.	119

A large part of the German production of crude salts were exported to other countries where they were manufactured into the abovementioned crude salts.

POTATOES.—The potato, a native of the Andes, is now grown in all temperate countries, and in one or two places even within the Arctic circle. It is extraordinarily productive, and can be profitably cultivated in cold climates where grains yield a very poor return. Potatoes are exported from France, Germany, the Canaries, and North America. In Russia and Germany the tubers are used to a great extent for the manufacture of spirit and dextrine and gum, and in Holland the same manufactures are carried on.

POTS, Watering.

Aubry, A., & Fils, Montreal, Que.
Davidson, The Thos., Mfg. Co., Ltd., Montreal.
McClary Mfg. Co., London, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.

POTTERY.—This name includes earthenware which, exposed to a comparatively low heat, remains earthy in texture and is easily scratched with a knife; stoneware, heated to a considerable temperature and rendered dense and hard; and porcelain or china, made of finely ground material and frequently decorated with great artistic skill. In the first two kinds various clays are used which may happen to occur in the neighbourhood of the factories, mixed with felspar, flint, or lime. Porous earthenware is frequently composed of clay only. The finer ware, porcelain, consists of a mixture of kaolin, sand, felspar, calcined bone, potash, granite, &c., in certain fixed proportion, each centre of the manufacture having its peculiar formula. These ingredients are ground down to exceeding fineness, and are glazed with various glazes adapted to their fusibility. Stoneware and earthenware pipes, flower-pots, jugs, jars, &c., are manufactured in many places where there is suitable clay and there is a demand for the goods. For table-ware china is now chiefly used, and is largely manufactured in the Potteries (Staffordshire), Montereau, Creil, Bordeaux, Tournay, and other towns. Artistic china is made at Worcester, Coalport, Derby, at Sevres, Limoges, &c., at Meissen near Dresden, Munich, Vienna, Berlin, and Naples. Parian ware, white porcelain in the form of statuettes and other ornaments, is manufactured in the English Potteries and at Paris. Eastern pottery is also prized, especially certain kinds of Japanese ware. England, France, Germany, and Holland export large quantities of pottery of various kinds, which are sent to North and South America, the colonies, &c. There is a considerable and growing industry in the United States.

POTTERY.

Campbell's, R., Sons, Hamilton, Ont.
Cranston, John, & Son, Hamilton, Ont.
Davis, John, & Son, North Toronto, Ont.
Foley, J. W. & Co., St. John, N.B.
Medicine Hat Pottery Co., Ltd., Medicine Hat, Alta.

POUCHES, Tobacco (Rubber).

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Walpole Rubber Co., Ltd., Montreal, Que.

POULTRY.—Fowls, ducks, geese and turkeys, pigeons, &c., are transported both alive and dead. The rearing of poultry for sale is common in all countries, but France, Russia, and Italy are the chief exporting countries, while Great Britain is the chief market for them.

POULTRY, Canned.

British Canadian Canners, Ltd., Hamilton, Ont.
Dominion Canners, Ltd., Hamilton, Ont.

POWDER, Baking.

Blackwood's, Ltd., Winnipeg, Man.
Blue Ribbon, Ltd., Winnipeg, Man.
Canadian Spice Mills, Quebec, Que.
Cochrane, C. H., & Co., Ottawa, Ont.
Codville Co., Ltd., The, Winnipeg, Man.
Coleman Baking Powder, Ltd., Brockville, Ont.
Dalley, F. F., Co. of Hamilton, Ltd., Hamilton, Ont.
Dearborn & Co., Ltd., St. John, N.B.
Dominion Coffee & Spice Mills Co., Montreal.
Dyson Co., The, Winnipeg, Man.
Eby-Blain, Ltd., Toronto, Ont.
Egg-O Baking Powder Co., Ltd., Hamilton, Ont.
Empress Mfg. Co., Ltd., Vancouver, B.C.
Ewing, S. H. & Sons, Montreal, Que.
Forbes & Nadeau, Montreal, Que.
Gillett, E. W., Co., Ltd., Toronto, Ont.
Gagnon & Garant, Ltd., Quebec, Que.
Georgeson & Co., Ltd., Calgary, Alta.
Gorman, Eckert & Co., Ltd., London, Ont.
Herron-LeBlanc, Ltd., Montreal, Que.
Hugman, A. W., Ltd., Montreal, Que.
Impérial Cocoa & Spice Co., Ltd., Hamilton, Ont.
Jameson, W. A., Coffee Co., Victoria, B.C.
Jersey Cream Factories, Ltd., Hamilton, Ont.
Kelly, Douglas Co., Ltd., Vancouver, B.C.
Lariviere & Frere, Montreal, Que.
Litster Pure Food Co., Ltd., Toronto, Ont.
Lowes, The J. M. Co., Ltd., Toronto, Ont.
McLaren, W. D., Ltd., Montreal, Que.
McLarens, Ltd., Hamilton, Ont.
Ocean Mills, Montreal, Que.
Pure Gold Mfg. Co., Ltd., Toronto, Ont.
Quebec Preserving Co., Quebec, Que.
White Star Mfg. Co., Winnipeg, Man.
White Swan Spices & Cereals, Ltd., Toronto.
Young-Winfield, Ltd., Hamilton, Ont.

POWDER, Blasting, Sporting and Stumping.

Acadia Powder Co., Ltd., Halifax, N.S.
Canadian Explosives, Ltd., Montreal, Que.
Curtis's & Harvey (Canada), Ltd., Montreal.
Dominion Explosives, Ltd., Ottawa, Ont.
Energite Explosives Co., Ltd., Montreal, Que.
Giant Powder Co., Consolidated, The, Vancouver, B.C.
Rack A Rack, Company, The, Sherbrooke, Que.

POWDER, Custard.

Genesee Pure Food Co., Bridgeburg, Ont.
Litster Pure Food Co., Ltd., Toronto, Ont.

POWDER, Egg.

Rose & Laflamme, Ltd., Montreal, Que.

POWDER, Ice Cream.

Codville Co., Ltd., The, Winnipeg, Man.
Genesee Pure Food Co., Bridgeburg, Ont.
Hayhoe, R. B. & Co., Toronto, Ont.
Robinson Mfg. Co., Toronto, Ont.
Rose & Laflamme, Ltd., Montreal, Que.

POWDER, Jelly.

Blue Ribbon, Ltd., Winnipeg, Man.
Codville Co., Ltd., The, Winnipeg, Man.
Dalley, F. F., Co. of Hamilton, Ltd., Hamilton, Ont.
Dalton Brothers, Toronto, Ont.
Dearborn & Co., Ltd., St. John, N.B.
Dyson Co., The, Winnipeg, Man.
Eby-Blain, Ltd., Toronto, Ont.
Empress Mfg. Co., Ltd., Vancouver, B.C.
Forbes & Nadeau, Montreal, Que.
Genesee Pure Food Co., Bridgeburg, Ont.
Georgeson & Co., Ltd., Calgary, Alta.
Gorman, Eckert & Co., Ltd., London, Ont.
Gun-Munro Spice Co., Ltd., Brantford, Ont.
Hayhoe, R. B., & Co., Toronto, Ont.
Hugman, A. W., Ltd., Montreal, Que.
Imperial Cocoa & Spice Co., Ltd., Hamilton, Ont.
Imperial Extract Co., Toronto, Ont.
Lariviere & Frere, Montreal, Que.
Litster Pure Food Co., Ltd., Toronto, Ont.
Lowes, The J. M. Co., Ltd., Toronto, Ont.

MacLaren Imperial Cheese Co., Ltd., Toronto, Ont.
McLarens, Ltd., Hamilton, Ont.
Nicholson & Brock, Toronto, Ont.
Pioneer Coffee & Spice Mills, Ltd., Victoria, B.C.
Pure Gold Mfg. Co., Ltd., Toronto, Ont.
Schwartz, W. H., & Sons, Halifax, N.S.
White Star Mfg. Co., Winnipeg, Man.
Young-Winfield, Ltd., Hamilton, Ont.

POWDER, Milk.

Canadian Milk Products, Ltd., Toronto, Ont.

POWDER, Soap.

Barsalou, J., & Co., Ltd., Montreal, Que.
Cudahy Packing Co., Toronto, Ont.
Forbes & Nadeau, Montreal, Que.
Taylor, John & Co., Ltd., Toronto, Ont.

POWDER, Talcum. (See also Toilet Preparations).

Canadian Talc & Silica Co., Ltd., Madoc, Ont.
Gillespie, Geo. H., & Co., Madoc, Ont.
Lever Bros., Ltd., Toronto, Ont.
Misner Mfg. Co., Ltd., The, Goderich, Ont.
Pulford Drug Co., The, Winnipeg, Man.
Richards Pure Soap Co., Ltd., The, Woodstock, Ont.
Seely Mfg. Co., Ltd., Windsor, Ont.
Wampole, Henry K., & Co., Ltd., Perth, Ont.

POWDER, Washing.

Alpha Chemical Co., Ltd., The, Berlin, Ont.
Auld Mucilage Co., The, Montreal, Que.
Birdland Society, London, Ont.
British America Paint Co., The, Victoria, B.C.
Fairbank, The N. K., Co., Ltd., Montreal, Que.
Lariviere & Frere, Montreal, Que.
Lawrason, S. F., & Co., London, Ont.
Richards Pure Soap Co., Ltd., The, Woodstock, Ont.
Royal Crown Soaps Ltd., The, Vancouver, B.C.
Victorine, Ltd., Montreal, Que.
Young-Thomas Soap Co., Ltd., The, Regina, Sask.

POWDER, Electric.

Chatham Gas Co., Ltd., Chatham, Ont.
Dorchester, La Compagnie Electrique, Quebec, Que.
East Canada Power & Pulp Co., Ltd., The, Murray Bay, Que.
Georgian Bay Milling & Power Co., Ltd., Meaford, Ont.
Lake Superior Corporation, The, Sault Ste. Marie, Ont.
Lariviere, La Cie., Ltd., Roxton Falls, Que.
Laurentide Co., Ltd., Montreal, Que.
Shawinigan Water & Power Co., The, Montreal.
Western Canada Power Co., Ltd., Vancouver, B.C.

PRECIOUS STONES.—The most valuable—diamonds, emeralds, rubies, and sapphires—are entered separately.

PRESSES, Baling.

Bredannaz, Louis, & Sons, Toronto, Ont.
Perrin, W. R., & Co., Ltd., Toronto, Ont.
Plant, W. P., Hastings, Ont.

PRESSES, Barrel and Box.

National Machine Co., Brighton, Ont.

PRESSES, Bookbinding.

Westman & Baker, Toronto, Ont.

PRESSES, Cheese.

James & Reid, Perth, Ont.
Plessisville Foundry Co., Ltd., The, Plessisville, Que.
Richardson, C., & Co., St. Mary's, Ont.
Smart, The James, Mfg. Co., Ltd., The, Brockville, Ont.

PRESSES, Cider and Wine.

London Foundry Co., Ltd., The, London, Ont.
Perrin, W. R., & Co., Ltd., Toronto, Ont.
Smart, The James Mfg. Co., Ltd., Brockville, Ont.

PRESSES, Die and Hand.

Letson & Burpee, Ltd., Vancouver, B.C.
Modern Machine & Electrical Works, Toronto.
Perrin, W. R., & Co., Ltd., Toronto, Ont.

PRESSES, Drill.

Bawden Machine Co., Ltd., Toronto, Ont.
Brown, Boggs Co., Ltd., Toronto, Ont.
Canadian Buffalo Forge Co., Ltd., Montreal.
Gardner Robt., & Son, Ltd., Montreal, Que.
Jardine, A. B., & Co., Hespeler, Ont.
Modern Machine & Electrical Works, Toronto.

PRESSES, Foot and Power, for Sheet Metal Stamping.

Brown, Boggs Co., Ltd., Hamilton, Ont.

PRESSES, Hay.

Bessette, La Cie., J. & S., Ltd., Iberville, Que.
Bell, The Robt., Engine & Thresher Co., Seaforth, Ont.
Chalifoux, O., & Fils, St. Hyacinthe, Que.
Dain Mfg. Co., Ltd., Welland, Ont.
Dore, J. B., & Fils, Montreal, Que.
Lamarre & Compagnie, St. Remi, Que.
Laurie E. Co., Montreal.
Moody, The Matthew, & Sons Co., Terrebonne, Que.
Woodstock Wind Motor Co., Ltd., Woodstock, Ont.

PRESSES, Hydarulic.

Bertram, John & Sons, Ltd., Dundas, Ont.
Canadian Boomer & Boschert Press Co., Ltd., Montreal, Que.
Laurie E. Co., Montreal.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.
Perrin, W. R., & Co., Ltd., Toronto, Ont.

PRESSES, Power Screw.

Banfield, W. H., & Sons, Toronto, Ont.
Canada Machinery Corporation, Ltd., Galt, Ont.
Canadian Boomer & Boschert Press Co., Ltd., Montreal, Que.

PRESSES, Printing and Lithographing.

Bawden Machine Co., Ltd., Toronto, Ont.
Miller & Richard, Toronto, Ont.
Modern Machine & Electrical Works, Toronto.
Toronto Type Foundry Co., Ltd., Toronto, Ont.
Westman & Baker, Toronto, Ont.

PRICKLY PEAR, or Indian Fig. The common Prickly Pear, a plant of the cactus order, is a native of the southern parts of North America, and is now grown in the south of Europe and many warm countries. The fruit is exported in small quantities from the Mediterranean. The Tuna of the West Indies also bears an agreeable fruit, and affords food to the cochineal.

PRINTING INK. (See INK.)

PRINTERS.

Acton Publishing Co., Ltd., Toronto, Ont.
Addison & Mainprice, Toronto, Ont.
Allen, T. C., & Co., Halifax, N.S.
Alexander & Cable Lithographing Co., Ltd., Toronto, Ont.
Apted, Wm. H., Toronto, Ont.
Armac Press, Ltd., The, Toronto, Ont.
Atlantic Lithographing Co., St. John, N.B.
Autographic Register Co. of Canada, Ltd., Montreal, Que.
Barnes & Co., Ltd., St. John, N.B.
Benallack Litho. & Printing Co., Ltd., Montreal.
Blackader Bros., Halifax, N.S.

Brigdens, Ltd., Toronto, Ont.
Brown, D. F., Paper Box & Paper Co., Ltd., St. John, N.B.
Brown-Searle Printing Co., Toronto, Ont.
Bryant Bros., Ltd., Winnipeg, Man.
Bulman Bros., Ltd., Winnipeg, Man.
Burrard Publishing Co., Ltd., Vancouver, B.C.
Business Systems, Ltd., Toronto, Ont.
Canada Carton Co., Ltd., London, Ont.
Clark & Stuart Co., Ltd., Vancouver, B.C.
Coffey, Thos., London, Ont.
Colonist Printing & Publishing Co., Ltd., Victoria, B.C.
Commercial Press, Ltd., The, Toronto, Ont.
Consolidated Lithographing & Mfg. Co., Ltd., Montreal, Que.
Copeland Chatterson Co., Ltd., Toronto, Ont.
Copp, Clark Co., Ltd., The, Toronto, Ont.
Corneil, C. R., Ltd., Montreal, Que.
Crown Lithographing Co., Ltd., Ottawa, Ont.
Davis & Henderson, Ltd., Toronto, Ont.
Dawson, Chas. F., Ltd., Montreal, Que.
Day, Geo. E., St. John, N.B.
Desbarats Printing Co., Ltd., Montreal, Que.
Doig, Fred., St. John, N.B.
Douglas Co., Ltd., The, Edmonton, Alta.
Duncan, Robert & Co., Hamilton, Ont.
Eaton, The T. Co., Ltd., Toronto, Ont.
Esdale Press, Ltd., The, Ottawa, Ont.
Evans & Hastings, Vancouver, B.C.
Farmers' Advocate & Home Journal, Winnipeg, Man.
Federated Press, Ltd., The, Montreal, Que.
Fleming, Atwell Printing Co., Toronto, Ont.
Fortier, Jos., Montreal, Que.
Grand & Toy, Ltd., Toronto, Ont.
Gareau-Sauriol Co., Montreal, Que.
Gazette Pfinting Co., Ltd., Montreal, Que.
Globe Printing Co., St. John, N.B.
Granger Freres, Montreal, Que.
Griffin & Richmond Co., Ltd., The, Hamilton, Ont.
Guelph Herald, The, Guelph, Ont.
Harcourt, The E. H., Ltd., Toronto, Ont.
Hart, S. R., & Co., Toronto, Ont.
Henderson Directories, Ltd., Winnipeg, Man.
Herald Co., Ltd., Montreal, Que.
Hunter-Rose Co., Ltd., Toronto, Ont.
Imperial Publishing Co., Ltd., The, Halifax, N.S.
Industrial & Educational Press, Ltd., Montreal.
Industrial & Technical Press, Ltd., Toronto.
International Railway Publishing Co., Ltd., Montreal, Que.
Jackson Press, The, Kingston, Ont.
Johnston, W. S., & Co., Toronto, Ont.
Keith, Chas. W., Toronto, Ont.
Knodell, G. A., St. John, N.B.
Kuhn, Merrill, Ltd., Ottawa, Ont.
Laidlaw Lithographing Co., Ltd., Hamilton, Ont.
Lawson & Jones, Ltd., London, Ont.
Le Soleil, Quebec, Que.
London Printing & Lithographing Co., Ltd., London, Ont.
Long, A. E., & Co., Ltd., Toronto, Ont.
Lovell, John & Son, Ltd., Montreal, Que.
Lovell, The R. J., Co., Ltd., Toronto, Ont.
Mace, Geo. A. & Co., Montreal, Que.
Mackinlay, A. & W., Ltd., Halifax, N.S.
McAlpine Publishing Co., Ltd., Halifax, N.S.
McGowan, The S. J., Mfg. Co., Ltd., St. John, N.B.
McIntosh, J I., Guelph, Ont.
McLean, R. G., Ltd., Toronto, Ont.
McMillan, J. & A., St. John, N.B.
Methodist Book & Publishing House, Toronto.
Miln-Bingham Printing Co., Toronto, Ont.
Modern Printing Co., Montreal, Que.
Monetary Times Printing Co. of Canada, Ltd., Toronto, Ont.
Moore Print Shop, Ltd., The, Toronto, Ont.
Moore, T. J. & Co., Quebec, Que.
Morrison, The J. L. Co., Toronto, Ont.
Mortimer & Co., Ltd., Ottawa, Ont.
Morton, Phillips & Co., Montreal, Que.
Murray Printing Co., Ltd., Toronto, Ont.
National Printing Co., Montreal, Que.
Osborne, J. Frank, Toronto, Ont.
Paquin, S. A., Montreal, Que.
Paterson & Co., St. John, N.B.
Patrie Publishing Co., Ltd., La, Montreal, Que. Vancouver, B.C.
Plow, B. & Co., Ltd., Montreal, Que.
Raw, Bob, & Co., Hamilton, Ont.
Reason, H. T., & Co., London, Ont.
Reid Press, Ltd., The, Hamilton, Ont.
Rous & Mann., Ltd., Toronto, Ont.
Simcoe Lithographing Co. Ltd., The, Simcoe, Ont.
Southam Press Ltd., Montreal and Toronto.
St. Lawrence Press, Ltd., Montreal, Que.
Scott, Noble, Ltd., Toronto, Ont.
Spectator Printing Co., The, Hamilton, Ont.
Stovel Company, Winnipeg, Man.
Talbot, A. & Co., The, Simcoe, Ont.
Taylor, T. W., & Co., Ltd. Winnipeg, Man.
Thompson Stationery Co., Ltd., The, Vancouver B.C.
United Typewriter Co., Ltd., Toronto, Ont.
Vancouver Printing & Publishing Co., Ltd., Man.
Willson Stationery Co., Ltd., The, Winnipeg.
Warwick Bros. & Rutter, Ltd., Toronto, Ont.

Printers Copper Plate & Engravers.

Matthews, Thos., Montreal, Que.

PRINTERS, Music.

Whaley, Royce & Co., Ltd., Toronto, Ont.

PRINTERS, Steel and Copper Plate.

Alexander & Cable Lithographing Co., Ltd., Toronto, Ont.
American Bank Note Co., Ottawa, Ont.
Benallack Litho. & Printing Co., Ltd., Montreal.
British American Bank Note Co., Ltd., Montreal, Que.
Colonist Printing & Publishing Co., Ltd., Victoria, B.C.
Duncan Lithographing Co., Ltd., Hamilton, Ont.
Kieran, Crawford & Gray, Montreal, Que.
Smith, The David, Engraving & Lithographing Co., Toronto, Ont.

PRINTERS SUPPLIES.

Hoe, R. & Co., Montreal, Que.
Miller, Richard, Toronto and Montreal.
Stewart, Geo. & Co., Montreal, Que.
Toronto Type Foundry, Toronto and Montreal.

PRINTERS, Wood.

Barchard & Co., Ltd., Toronto, Ont.
Consumers' Box Lumber Co., Ltd., Toronto.
Esplin, G. & J., Montreal, Que.
Firstbrook Bros., Ltd., Toronto, Ont.
Georgian Bay Shook Mills, Ltd., Toronto, Ont.
Kilgour Mfg. Co., Hamilton, Ont.
Martin Freres & Cie., Ltd., Montreal, Que.

PRISMS, Window, Sidewalk, Vault and Skylight.

Hobbs Mfg. Co., Ltd., The, London, Ont.
Luxfer Prism Co., Ltd., The, Toronto, Ont.
Watson, John & Son, of Montreal, Ltd., Montreal, Que.

PRODUCERS, Gas.

Canada Producer & Gas Engine Co., Ltd., Barrie, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Fairbanks Morse Co., Ltd., Montreal.
Turner, John, & Son, Toronto, Ont.
Waterloo Mfg. Co., Ltd., The, Waterloo, Ont.

PROPS, Clothes.

McFarlane Ladder Works, Toronto, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

PROPS, Mine.

Crow's Nest Pass Lumber Co., Ltd., Wardner, B.C.
Jewell Lumber Co., Ltd., Hanbury, B.C.
McInnes, M., Crow's Nest, B.C.
Otis Staples Lumber Co., Ltd., Wycliffe, B.C.

PRUNELLOES, prunes made of greengages and other fine-flavoured plums.

PRUNES.—These are plums, from a variety of the common blue plum-tree, dried in ovens. The best quality is produced in the departments of Tarn, Lot, and Lot-et-Garonne, France. Tour prunes come from Vienne, Indre-et-Loire, and Maine-et-Loire, and guetches from Meurthe-et-Moselle. On the prunes of Provence the bloom remains after drying. Bosnia and Servia and California also export prunes, and Japanese plums, introduced into Algeria, produce good prunes.

PRUNERS, Tree.

Taylor-Forbes Co., Ltd., Guelph, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.

PRUSSIAN BLUE, Sesquiferrocyanide of iron used by laundresses. Called also Berlin blue.

PUBLISHERS, Book.

Blackader Bros., Halifax, N.S.
Blackhall & Company, Toronto, Ont.
Blake, W. E., & Son, Toronto, Ont.
Bradley-Garretson Co., Ltd., Brantford, Ont.
Burrard Publishing Co., Ltd., Vancouver, B.C.
Carswell Co., Ltd., The, Toronto, Ont.
Coffey, Thomas, London, Ont.
Consolidated Litho. & Mfg. Co., Ltd., Montreal.
Copp, Clark Co., Ltd., The, Toronto, Ont.
Corneil, C. R., Ltd., Montreal, Que.
Desbarats Printing Co., Ltd., Montreal, Que.
Gage, W. J., & Co., Ltd., Toronto, Ont.
Granger Freres, Montreal, Que.
Griffin & Richmond Co., Ltd., The, Hamilton, Ont.
Henderson Directories, Ltd., Winnipeg, Man.
Hunter-Rose Co., Ltd., Toronto, Ont.
Industrial & Educational Press, Ltd., Montreal.
Industrial & Technical Press, Ltd., Toronto.
Kuhn, Merrill, Ltd., Ottawa, Ont.
Langlois, J. A. & Co., Quebec, Que.
Legg Bros., Ltd., Toronto, Ont.
Librarie Beauchemin, Ltd., Montreal, Que.
Lovell, John & Son, Ltd., Montreal, Que.
MacLean Publishing Co., Ltd., Toronto, Ont.
Methodist Book & Publishing House, Toronto.
Might Directories, Ltd., Toronto, Ont.
Monetary Times Printing Co. of Canada, Ltd., Toronto, Ont.
Morang & Co., Ltd., Toronto, Ont.
Morton, Phillips Co., Montreal, Que.
Murray Printing Co., Ltd., Toronto, Ont.
Mussen Book Co., Ltd., The, Toronto, Ont.
Talbot, A., & Co., London, Ont.
Warwick Bros. & Rutter, Ltd., Toronto, Ont.

PULL STRAPS, Shoe.

Canada Label & Webbing Co., Ltd., Toronto.
Colonial Weaving Co., Ltd., Peterborough, Ont.

PULLERS, Cork.

Hamilton Brass Mfg. Co., Ltd., Hamilton, Ont.

PULLERS, Nail and Tack.

Cowan & Britton, Ltd., Gananoque, Ont.

PULLERS, Spike.

Canadian Steel Foundries, Ltd., Montreal, Que.

PULLEYS, Ball Bearing.

Chapman Double Ball Bearing Co. of Canada, Ltd., Toronto, Ont.

PULLEYS, Combination Split.

Positive Clutch & Pulley Works, Ltd., Toronto.

PULLEYS, Hay Fork.

See Carriers Hay, Feed, and Grain Hay and Grain Unloaders.

PULLEYS, Iron.

Beatty Bros., Ltd., Fergus, Ont.
Bell, B. & Son. Co., Ltd., St. George, Ont.
Bell, The Robt. Engine & Thresher Co., Ltd., Seaforth, Ont.
Brown Machine Co., Ltd., New Glasgow, N.S.
Bruce Agricultural Works, The, Teeswater, Ont.
Calgary Iron Works, Ltd., The, Calgary, Alta.
Canada Steel Goods Co., Ltd., Hamilton, Ont.
Canadian Bond Hanger & Coupling Co., Ltd., Alexandria, Ont.
Corbet Foundry Co., The, Owen Sound, Ont.
Crescent Machine Co., Ltd., Montreal, Que.
Dodge Mfg. Co., Ltd., Toronto, Ont.
Electric Meter & Stamping Co., Ltd., The, New Hamburg, Ont.
Fleck Alexander, Ltd., Ottawa, Ont.
Gardner, Robt. & Son, Ltd., Montreal, Que.
Goldie & McCulloch Co., Ltd., The, Galt, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Inglis, The John Co., Ltd., Toronto, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Jones & Glassco, Montreal, Que.
Leonard, E., & Sons, London, Ont.
Letson & Burpee, Ltd., Vancouver, B.C .
Long, The E., Mfg. Co., Ltd., Orillia, Ont.
Matheson, I. & Co., Ltd., New Glasgow, N.S.
Miller Bros. & Sons, Ltd., Montreal, Que.
Mowry & Sons, Gravenhurst, Ont.
Owen Sound Iron Works Co., Ltd., Owen Sound, Ont.
Oxford Foundry & Machine Co., Ltd., Oxford, N.S.
Payette, The P. Co., Penetanguishene, Ont.
Plessisville Foundry Co., Ltd., The, Plessisville, Que.
Smart-Turner Machine Co., Ltd., Hamilton, Ont.
Smart, The Jas. Mfg. Co., Ltd., Brockville, Ont.
Smith Foundry Co., Ltd., The, Fredericton, N.B.
Stratford Mill Building Co., Ltd., The, Stratford, Ont.
Thetford Cie., Ltd., La Founderie de Thetford Mines, Que.
Waterous Engine Works Co., Ltd., Brantford, Ont.
Wilson, J. C. & Co., Glenora, Ont.

PULLEYS, SASH.

Belleville Hardware & Lock Mfg. Co., Ltd., Belleville, Ont.
Peterborough Lock Mfg. Co., Ltd., The, Peterborough, Ont.
Smart, The James Mfg. Co., Ltd., Brockville, Ont.

PULLEYS, Screw, Side, Furnace, Hot House, Clothesline, Etc.

Smart, The James Mfg. Co., Ltd., Brockville, Ont.

PULLEYS, Wood and Wood Split.

Calgary Iron Works, Ltd., The, Calgary, Alta.
Canadian Fairbanks Morse Co., Ltd., Montreal.
Dodge Mfg. Co., Ltd., Toronto, Ont.
Dominion Safe & Vault Co., Ltd., Farnham, Que.
Elmira Machinery and Transmission Co., Ltd., Elmira, Ont.
Goldie & McCulloch Co., Ltd., The, Galt, Ont.
Greey, Wm., & J. G., Toronto, Ont.
Letson & Burpee, Ltd., Vancouver, B.C .
Long, The E., Mfg. Co., Ltd., Orillia, Ont.
Mowry & Sons, Gravenhurst, Ont.
Nichols, A. E., Parrsboro, N.S.
Plessisville Foundry Co., Ltd., The, Plessisville, Que.
Positive Clutch & Pulley Works, Ltd., Toronto.
Reeves Pully Mfg. Co., Ltd., Toronto, Ont.

PULLS, Door and Drawer.

Belleville Hardware & Lock Mfg. Co., Ltd., Belleville, Ont.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Denton, L. B. & Co., Woodstock, Ont.
Electric Meter & Stamping Co., Ltd., The, New Hamburg, Ont.
Hahn Brass Co., Ltd., The, New Hamburg, Ont.
Peterborough Lock Mfg. Co., Ltd., Peterborough, Ont.

Smart, The Jas. Mfg. Co., Ltd., Brockville, Ont.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.
Stratford Brass Co., Ltd., Stratford, Ont.
Taylor, Forbes Co., Ltd., Guelph, Ont.
Westport Mfg. & Plating Co., Ltd., The, Westport, Ont.

PULLS, Gong Bell.

Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

PULP and PAPER.—The common sources of paper are wood, cotton, linen, esparto grass, straw, manilla hemp and bamboo; other fibres mostly from reeds and grasses are being constantly investigated. Old papers are also used in manufacturing cheap grades of paper.

The main source of pulp and paper in Canada is wood, principally spruce; balsam fir is also used to a considerable extent and hemlock, jack pine and poplar to a small extent. For pulp wood purposes the tree is trimmed of its branches and the trunk cut up into pulp wood blocks. The bark is removed sometimes in the bush before the trunk is cut up and sometimes at the mill or in wood yards by machines known as barkers. The production of pulp wood is in itself quite an industry in Canada. It is partially carried on by the pulp and paper companies themselves, at least those of them who hold timber limits from the Crown and partially carried on by farmers and other freeholders who cut small quantities when they have time and sell it direct to the mills or to wood dealers. Considerable of this wood is exported, but a large and rapidly increasing portion of it is being used by Canadian mills. The consumption by Canadian mills is rapidly increasing. In 1910 it was 598,487 cords and in 1914 1,224,376 cords, valued at $6,680,490. The value of pulp wood produced in Canada in 1914 was therefore 14,770,358.

The commonest and cheapest kind of pulp is known as groundwood pulp or mechanical pulp, and is made by simply pressing the wood blocks against the surface of rapidly revolving circular stones. The gritty surface of the stone wears down the wood into more or less fibrous material called groundwood pulp, which is used in the manufacture of low grade papers, such as news.

The other grade of pulp is ordinarily referred to is sulphite pulp. It is used unbleached in the cheaper grades of paper and bleached in the higher grades. Sulphite pulp is made by chipping the blocks of wood into small chips an inch or an inch and a half long and boiling them under considerable pressure in hot sulphurous acid, which is obtained by burning sulphur or roasting pyrites and conveying the gases into an acid making tower where water is allowed to trickle down over blocks of limestone. This cooked wood or sulphate pulp is blown off from the tanks and sold in either sheets or rolls. Pulps from other vegetable fibres are made in somewhat similar manner.

In the making of paper the pulps in the proportions required for the desired grade of paper are mixed and well beaten by special machinery together with other ingredients such as china clay, talc, colors, etc. While it is still in a soft pulpy mass it is allowed to flow out on a travelling and vibratory screen through which considerable of the water drains off. The thin layer of pulp passed from the screen to a felt belting which dries it further and passes it on in a continuous sheet between heated rollers and thence to a series of calenders or iron rollers which give it a smooth or calendered surface. In this condition most of the cheaper papers are shipped direct for use. If a higher finish is required a super-calender, or additional set of rollers, is used. In the case of coated papers the sheet is further drawn through a bath of coating material, generally composed of china clay, talc, rosen, etc., then allowed to dry and again calendered.

Most writing papers contain considerable quantities of pulp made from linen rags and the best of writing paper is made from pure linen pulp. Writing papers are taken from driers in a partially moist condition and hung over bars in a dry atmosphere until sufficiently dry, after which they are calendered. These are referred to as loft dried.

There are in Canada seventy-six mills which can be classed under the head of pulp and paper mills, making news, book and writing papers, paper board, sheeting, roofing and boxing material. Of these seventy-six, three are under construction and one is rebuilding. These mills employ upwards of sixteen thousand men who received over ten million dollars in wages annually.

The total production of pulp in Canada for the year 1914 was 934,700 tons, valued approximately at $19,000,000. The exports of pulp were 424,883 short tons, valued at $8,865,436. The imports of pulp in the same year were valued at $444,601.

The Canadian production of paper of all kinds, including paper board, was 886,000 short tons. The exports of Canadian paper, particularly news, in the same year were valued at $12,752,933, and the imports which were very largely book and other high grade papers were valued at $9,043,368.

PULP, Fruit and Vegetable.

British Canadian Canners, Ltd., Hamilton, Ont.
Dominion Canners, Ltd., Hamilton, Ont.
Erie Evaporating Co., Dunnville, Ont.
Graham Co., Ltd., The, Belleville, Ont.
Robinson, D. E., & Co, Ingersoll, Ont.

PULP, Ground Wood Pulp.

Abitibi Power & Paper Co., Montreal.
Anglo-Newfoundland Development Co., Ltd., Grand Falls, Newfoundland.
Belgo-Canadian Pulp & Paper Co., Shawinigan Falls, Que.
Brompton Pulp & Paper Co., Brompton and E. Angus, Que.
Booth, J. R., Ottawa, Ont.
Bronson Co., Ltd., Ottawa, Ont.
Campbell Lumber Co., Weymouth, N.S.
Canada Paper Co., Ltd., Montreal, Que.
Chicoutimi Pulp Co., Chicoutimi, Que.
Davy, James, Thorold, Ont.
Eddy Co., The E. B., Ltd., Hull, Que.
Foley-Rieger Pulp & Paper Co., Ltd., Thorold, Ont.
Ford, J. & Co., Port Neuf, Que.
Jacques-Cartier Pulp & Paper Co., Montreal.
Jonquiere Pulp Co., Ltd., Jonquiere, Que.
Lake Megantic Pulp Co., Lake Megantic, Que.
Laurentide Co., Ltd., Grand Mere, Que.
MacLaren Co., Ltd., The James, Buckingham, Que.
McLeod Pulp Co., Ltd., Liverpool, N.S.
News Pulp & Paper Co., Ltd., St. Raymond, Que.

Nicolet Falls Pulp & Lumber Co., Nicolet Falls, Que.
North Shore Power Railway & Navigation Co., Clarke City.
Northumberland Pulp Co., Campbellford, Ont.
Ontario Paper Company, Thorold, Ont.
Powell River Co., Ltd., Powell River, B.C.
Price Bros. & Co., Ltd., Kenogami, Que.
Provincial Paper Mills Co., Toronto, Ont.
Price-Porritt Pulp & Paper Co., Rimouski, Que.
Reed, A. E. & Co., (Nfld.), Ltd., Bishop's Falls, Nfld.
River-du-Loup Pulp Co., Ltd., Fraserville, Que.
Soucy, F., Florentin, Old Lake Road, Que.
Spanish River Pulp & Paper Mills, Ltd., Sault Ste. Marie, Ont.
Union Bag & Paper Co., Cape Madeleine, Que.

PULP, Kraft.

Brompton Pulp & Paper Co., Brompton and E. Angus, Que.
Dryden Timber & Power Co., Dryden, Ont.
Brown Corporation, La Tuque, Que.
Wayagamack Pulp & Paper Co., Ltd., Three Rivers, Que.

PULP, Soda Fibre.

Canada Paper Co., Ltd., Montreal and Toronto.
Provincial Paper Mills Co., Ltd., Toronto, Ont.

PULP, Sulphite Fibre.

Abitibi Power & Paper Co., Montreal.
Anglo-Newfoundland Development Co., Ltd., Grand Falls, Newfoundland.
Belgo-Canadian Pulp & Paper Co., Shawinigan Falls, Que.
British Columbia Sulphite Fibre Co., Ltd., Vancouver, B.C.
Booth, J. R., Ottawa, Ont.
Donnacona Pulp & Paper Co., Donnacona, Que.
Edward Partington Pulp & Paper Co., Ltd., St. John, N.B.
Eddy Co., The E. B., Ltd., Hull, Que.
Jonquiere Pulp Co., Ltd., Jonquiere, Que.
Laurentide Co., Ltd., Grand Mere, Que.
Powell River Co., Ltd., Powell River, B.C.
Price Bros. & Co., Ltd., Kenogami, Que.
Riordon Pulp & Paper Co., Ltd., Montreal, Que.
Spanish River Pulp & Paper Mills, Ltd., Sault Ste. Marie, Ont.
Toronto Paper Mfg. Co., Ltd., Cornwall, Ont.

PULPERS, Root. (See also Cutters and Slicers).

Bell, B., & Son Co., Ltd., St. George, Ont.
Bruce Agricultural Works, Teeswater, Ont.
Cockshutt Plow Co., Ltd., Brantford, Ont.
Dick, Wm., Bolton, Ont.
Noxon Co., Ltd., The, Ingersoll, Ont.
Shantz, P. E., Preston, Ont.
Tolton Bros., Ltd., Guelph, Ont.
Vilas, W. F., Cowansville, Que.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.

PULPITS AND PULPIT CHAIRS.

Globe Furniture Co., Ltd., The. Waterloo, Ont.
Globe Furniture Co., Ltd., The, Waterloo, Ont.
Hanbury Mfg. Co., Ltd., Brandon, Man.
Krug Bros., Co., Ltd., Chesley, Ont.
Mitchell, The Robt., Co., Ltd., Montreal, Que.
Valley City Seating Co., Ltd., The, Dundas, Ont.

PULPSTONE.

Alabastine Co., Paris, Ltd., The, Paris, Ont.

PULQUE, a fermented beverage made in Central America from the juice of the Agave.

PULVERIZERS, Land.

Bell, B., & Son Co., Ltd., St. George, Ont.
Cockshutt Plow Co., Ltd., Brantford, Ont.
Gardner, Robt., & Son, Ltd., Montreal, Que.
Jeffrey Mfg. Co., Montreal, Que.
Stephenson, E. S. & Co., St. John, N.B.
Verity Plow Co., Ltd., Brantford, Ont.
Watson, John Mfg. Co., Ltd., Ayr, Ont.

PULU FIBRE, the silky hairs of a tree-fern shipped from the Sandwich Islands, Azores, West Indies, and Canaries, for stuffing pillows, &c. (See also **PAKU KIDANG**).

PUMICE, highly porous and cellular lava, which is used for polishing wood, ivory, metals, [illegible] &c., and for preparing parchment and leather. Large quantities are exported from the Lipari Islands.

PUMPS, Acid and Circulating.

Canada Steam Pump & Machine Co., Ltd., Toronto. Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.

PUMPS, Air.

Canada Steam Pump & Machine Co., Ltd., Toronto, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Buffalo Forge Co., Ltd., Montreal.
Canadian Ingersoll Rand Co., Ltd., Montreal.
Darling Bros., Ltd., Montreal, Que.
Gilson Mfg. Co., Ltd., Guelph, Ont.
Inglis, The John, Co., Ltd., Toronto, Ont.
Mitchell, Robt. Co., Ltd., Montreal, Que.
Smart-Turner Machine Co., Ltd., The, Hamilton,

PUMPS, Beer.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Mitchell, Robt. Co., Ltd., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

PUMPS, Bilge (Brass.)

Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Schofield-Holden Machine Co., Ltd., Toronto.

PUMPS, Boiler Feed.

Bawden Machine Co., Ltd., Toronto, Ont.
Canada Steam Lumber & Machine Co., Ltd., Toronto, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Darling Bros., Ltd., Montreal, Que.
Goldie & McCulloch Co., Ltd., The, Galt, Ont.
Leonard, E., & Sons, London, Ont.
Manitoba Bridge & Iron Works, Ltd., Winnipeg.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
McDougall, R., Co., Ltd., Galt, Ont.
McOuat, T., & Son, Lachute Mills, Que.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

PUMPS, Centrifugal.

Beatty, M., & Sons, Ltd., Welland, Ont.
Bruce Agricultural Works, The, Teeswater, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Buffalo Forge Co., Ltd., Montreal.
Darling Bros., Ltd., Montreal, Que.
Gilson Mfg. Co., Ltd., Guelph, Ont.
Goold, Shapley & Muir Co., Ltd., Brantford, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Inglis, The John, Co., Ltd., Toronto, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.
McDougall, R., Co., Ltd., Galt, Ont.
McOuat, T., & Son, Lachute Mills, Que.
Park Brothers, Chatham, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Waterous Engine Works Co., Ltd., Brantford,

PUMPS, Chain (Galvanized).

Metal Shingle & Siding Co., Ltd., Preston, Ont.

PUMPS, Deep Well.

Bruce Agricultural Works, The, Teeswater, Ont.
Manitoba Engines, Ltd., Brandon, Man.
Oil Well Supply Co., Ltd., Petrolia, Ont.
Ontario Wood Pump Co., Shakespeare, Ont.
Smart, The James Mfg. Co., Ltd., Brockville, Ont.

PUMPS, Duplex and Triplex Power.

Bawden Machine Co., Ltd., Toronto, Ont.
Beatty Bros., Ltd., Fergus, Ont.
Canadian Fairbanks-Morse Co., Ltd., Montreal.
Gilson Mfg. Co., Ltd., Guelph, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Martin Pump & Machine Co., Toronto, Ont.

McOuat, T., & Son, Lachute Mills, Que.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.

PUMPS, Electric.

Canadian Buffalo Forge Co., Ltd., Montreal.
Darling Bros., Ltd., Montreal, Que.
Fisher Electric & Mfg. Co., Ltd., Toronto, Ont.

PUMPS, Fire.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Buffalo Forge Co., Ltd., Montreal.
Canadian Fairbanks-Morse Co., Ltd., Montreal.
Inglis, The John, Co., Ltd., Toronto, Ont. Ont.
Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
McOuat, T., & Son, Lachute Mills, Que.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Vogel Co. of Canada, Ltd., Montreal, Que.

PUMPS, Hydraulic Pressure.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Buffalo Forge Co., Ltd., Montreal.
Gilson Mfg. Co., Ltd., Guelph, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Inglis, The John Co., Ltd., Toronto, Ont.
McDougall, R., & Co., Ltd., Galt, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.

PUMPS, Iron, Fence and Lift.

Aylmer Pump & Scale Co., Ltd., Aylmer, Ont.
Beatty Bros., Ltd., Fergus, Ont.
Brandon Pump & Windmill Works, Brandon, Man.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Fairbanks-Morse Co., Ltd., Montreal.
Dominion Supply Co., Ltd., The, Cargill, Ont.
Gilson Mfg. Co., Ltd., Guelph, Ont.
Goold, Shapley & Muir Co., Ltd., Brantford, Ont.
Heller-Aller Co., Ltd., Windsor, Ont.
Hill, A., & Co., Mitchell, Ont.
McDougall, R. Co., Ltd., Galt, Ont.
McOuat, T., & Son, Lachute Mills, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
National Equipment Co., Ltd., Toronto, Ont.
Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
Selby & Youlden, Ltd., Kingston, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Stewart, Bruce & Co., Ltd., Charlottetown, P.E.I.
Stratford Bridge & Iron Works Co., Stratford, Ont.
Woodstock Wind Motor Co., Ltd., Woodstock, Ont.

PUMPS, Self-Measuring.

Bowser, S. F., & Co., Toronto, Ont.
Hamilton Brass Mfg. Co., Ltd., Hamilton, Ont.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
National Equipment Co., Ltd., Toronto, Ont.
Oil Motor & Mfg. Co., Ltd., St. John, N.B.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.

PUMPS, Pitcher.

Gilson Mfg. Co., Ltd., Guelph, Ont.
McDougall, R., & Co., Ltd., Galt, Ont.
Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.

PUMPS, Ship.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Hall Engineering Works, The, Montreal, Que.
McDougall, R., & Co., Ltd., Galt, Ont.
Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Terminal City Iron Works, Vancouver, B.C.
Westhover, R. B., Mahone Bay, N.S.

PUMPS, Spray.

Gilson Mfg. Co., Ltd., Guelph, Ont.
Smart, The Jas., Mfg. Co., Ltd., Brockville, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.
Pramotor Company, London, Ont.
Westhover, R. B., Mahone Bay, N.S.

PUMPS, Steampower (for Mines, Paper and Pulp Mills and Tanneries.)

Bawden Machine Co., Ltd., Toronto, Ont.
Beatty, M., & Sons, Ltd., Welland, Ont.
Canada Steam Pump & Machine Co., Ltd., Toronto, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Boving Co., Ltd., Toronto, Ont.
Canadian Buffalo Forge Co., Ltd., Montreal.
Canadian Fairbanks-Morse Co., Ltd., Montreal.
Crescent Machine Co., Ltd., The, Montreal.
Darling Bros., Ltd., Montreal, Que.
Drolet, F. X., Quebec, Que.
Hall Engineering Works, Montreal, Que.
Inglis, The John, Co., Ltd., Toronto, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Martin Pump & Machine Co., Toronto, Ont.
Matheson, I. & Co., Ltd., New Glasgow, N.S.
McDougall, R. Co., Ltd., Galt, Ont.
Moir, W. & A., Halifax, N.S.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.

PUMPS, Tire, Hand and Power.

Tallman Brass & Metal Co., Hamilton, Ont.

PUMPS, Turbine.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Boving Co., Ltd., Toronto, Ont.
Canadian Buffalo Forge Co., Ltd., Montreal.

PUMPS, Vacuum.

Bawden Machine Co., Ltd., Toronto, Ont.
Canada Steam Pump & Machine Co., Ltd., Toronto, Ont.
Darling Bros., Ltd., Montreal, Que.
Inglis, The John, Co., Ltd., Toronto, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

PUNCHES AND PUNCH COUPLINGS.

Banfield, W. H., & Sons, Toronto, Ont.
Brown, Boggs Co., Ltd., Hamilton, Ont.
Canada Machinery Corporation, Ltd., Galt, Ont.
Canadian Buffalo Forge Co., Ltd., Montreal.
Hamilton Gear & Machine Co., Toronto, Ont.
Jardine, A. B., & Co., Hespeler, Ont.
Pratt & Whitney Co. of Canada, Ltd., Dundas, Ont.

PURGUERA. (See PHYSIC NUTS.)

PUSH BINDERS AND HEADERS.

International Harvester Co. of Canada, Ltd., Hamilton, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.

PUTCHULK, or Kut, an Indian name for a root which resembles orris root.

PUTTY, a mixture of whiting and drying oil, which after a time sets very hard and is used to fix in panes of glass.

PUTTY.

Brandram-Henderson, Ltd., Montreal, Que.
British America Paint Co., The, Victoria, B.C.
Canada Paint Co., Ltd., The, Montreal, Que., and Winnipeg, Man.
Moore, Benjamin, & Co., Ltd., Toronto, Ont.
Muirhead, A., Co., Ltd., Toronto, Ont.
Ottawa Paint Works, The, Ottawa, Ont.

PUTTY, Stove.

Canadian Asbestos Co., Montreal, Que.
Scarfe & Co., Brantford, Ont.
Sterne, G. F., & Sons, Brantford, Ont.

PUTTY POWDER, binoxide of tin ground to powder and used for polishing stone, glass, &c., and for making white enamel.

PYJAMAS.

Crown Shirt Co., Ltd., The, Winnipeg, Man.
Dufferin Shirt Co., Ltd., Toronto, Ont.
Tooke Bros., Ltd., Montreal, Que.
Tolton, Harry, Berlin, Ont.

PYRITES, ores of metals combined with sulphur or arsenic. Iron and copper pyrites are largely used in the manufacture of sulphuric acid, green vitriol, and alum. The principal producing countries of the world are Norway, Spain, France, United States and Germany, each producing from 250 to 300 thousand tons annually. Italy, Hungary and Portugal each produce about 100,000 tons annually. Sweden produces about 40,000 tons. The Canadian production aggregates about 50,000 tons annually. It is mined and treated in the provinces of Ontario and Quebec. **(See SULPHUR).**

PYRITES.

Algoma Steel Corporation, Ltd., Helen Mine, Ont.
Buffalo-Brockville Mining Co., Brockville, Ont.
Canadian Sulphur Ore Co., Ltd., Madoc, Ont., and Queensboro.
Eustis Mining Co., Eustis, Que.
East Canada Smelting Co., Ltd., Weedon, Que.
Nichols Chemical Co. of Canada, Ltd., Sulphide, Que.
Northern Pyrites Co., Dinowic, Ont., and Graham.
Lake Superior Power Co., Sault Ste. Marie, Ont.

Q

QUAIL, a bird of the partridge family, found in South Europe, North Africa, Asia, Australia, and America. Large numbers are netted in the South of Europe, especially on Capri in the bay of Naples, and in Egypt. The American quails include a very large number of species.

QUARTZ, Ground.

Electric Reduction Co., Ltd., Buckingham, Que.

QUASSIA.—The Quassia amara of tropical America yielded originally the quassia wood used in medicine, but now the name is usually given to Bitterwood.

QUEBRACHO.—There are several species of this tree growing in South America. The bark of the white quebracho is bitter, and is used medicinally in cases of intermittent fever. For tanning the bark of a tree of a different family, is used, and it also yields a dye.

QUERCITRON, the bark of the yellow or Dyer's oak of North America. With different mordants it dyes wool, silk, and cotton yellow, olive-green, grey, or black. An extract called flavine is extensively employed.

QUICKSILVER. (See MERCURY.)

QUILLAJA BARK, the bark of a large tree of the Rosaceæ order, which grows in Chile, Peru, and Bolivia. The bark is often sold as Panama bark, and is used in cleaning dyed woollen and silk articles, as it does not disturb the colour.

QUILLS.—The quills of geese, swans, and turkeys are still prepared for writing, though superseded to a large extent by metallic pens. Crow quills are used for fine writing and drawing. Germany, Bohemia, Poland, and Russia deal in quills, and large quantities are brought from the Hudson Bay Territory. They are also made into toothpicks.

QUILTS.

Canadian Feather & Mattress Co., Ltd., Toronto.
Canadian Carpet & Comforter Mfg. Co., Ltd., Toronto, Ont.
Stamco, Ltd., Saskatoon, Sask .

QUINCE.—The common quince, a native of the south of Europe and the temperate countries of Asia, is a low tree, bearing fruits rather rounder than a pear, and of a yellowish colour. Jelly and marmalade are made of the fruit. The seeds, which are very mucilaginous, are used in medicine, and in the preparation of bandoline.

QUININE.—Quinine is an alkaloid contained in cinchona bark. It is most frequently used as medicine, and is exported in the form of sulphate. Quinine is manufactured chiefly in Germany, the United States, and France.

QUOIN, Printers'.

Westman & Baker, Toronto, Ont.

QUOITS, Rubber.

Dunlop Tire & Rubber Goods Co., Ltd., Toronto.

R

RABANNAS, matting made of Raphia fibre, which is exported from Madagascar.

RABBITS.—Besides wild rabbits, shot in the fields, many come to market from artificial warrens. Large numbers are fattened in Germany, many of which are exported through Belgium. From Australia and Tasmania hundreds of thousands have been sent to Europe in refrigerating chambers. Still larger numbers of skins are annually sold for their fur, which is used in the manufacture of felt hats, and is converted into imitations of more expensive furs. Besides Australia, Russia and Poland supply rabbit skins, and North America a small kind of less value.

RACOON, a small animal of the bear family. The skins were formerly exported from North America in large numbers, but now they are becoming very scarce.

RAFIA. (See RAPHIA).

RACKS, Book.

Otterville Mfg. Co., Ltd., Otterville, Ont.
Valley City Seating Co., Ltd., The, Dundas, Ont.

RACKS, Clothing, Revolving and Stationary.

Richardson, A. S., & Co., Toronto, Ont.
Steel Furnishing Co., The, New Glasgow, N.S

RACKS, Coat and Hat.

Thomas Brothers, Ltd., St. Thomas, Ont.

RACKS, Hay and Stock.

Adams Wagon Co., Ltd., Brantford, Ont.
Bain Wagon Co., Ltd., Woodstock, Ont.
Eureka Planter Co., Ltd., The, Woodstock, Ont.

RACKS AND REELS, Fire Hose.

Chatham Malleable & Steel Mfg. Co., Chatham, Ont.
Morrison, The James, Brass Mfg. Co., Ltd, Toronto, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Watson, John, Mfg. Co., Ltd., Ayr. Ont.
Wilson & Cousins, Toronto, Ont.

RACQUETS, Tennis.

Bentley & Anderson, Niagara Falls, Ont.
Reach, The A. J., Co., Toronto, Ont.

RADIATORS, Hot Water and Steam.

American Radiator Co. of Canada, Ltd., Toronto.
Clare Bros. & Co., Ltd., Preston, Ont.
Dominion Radiator Co., Ltd., Toronto, Ont.
Gurney Foundry Co., Ltd., Toronto, Ont.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Steel & Radiation, Ltd., Toronto, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
Tilden, Gurney & Co., Ltd., Winnipeg, Man.
Warden, King, Ltd., Montreal, Que.

RAGI, Indian name for a grass, cultivated as a cereal, particularly in Mysore.

RAGS.—Though wood-pulp, esparto, and other materials have been introduced, rags are still used in the manufacture of fine and strong papers, and are mixed with other material to make inferior paper. Woollen rags and old clothes are worked up in shoddy mills into coarse flannels, druggets, &c. Rags are a not insignificant article in international trade.

RAILINGS, Brass.

Alberta Ornamental Iron Co., Ltd., Redcliff, Alta.
British Columbia Iron & Wire Fence Co., Vancouver, B.C.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Garth Company, The, Montreal, Que.
Hamilton Brass Mfg. Co., Ttd., Hamilton, Ont.
McDonald & Willson Co., Ltd., Toronto, Ont.
Meadows, The George B., Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Mitchell, The Robert Co., Ltd., Montreal, Que.
Morrison, The James, Brass Mfg. Co., Ltd., Toronto, Ont.
Tallman Brass & Metal Co., Hamilton, Ont.
Toronto Brass Mfg. Co., Toronto, Ont.
Tuttle & Bailey Mfg. Co., Bridgeburg, Ont.
Watson, John & Son, of Montreal, Ltd., Montreal, Que.

RAILINGS, Iron (Bank, Office and Balcony).

Alberta Ornamental Iron Co., Ltd., Redcliff, Alta.
Belanger, A., Montmagny, Que.
British Columbia Iron & Wire Fence Co., Vancouver, B.C.
Canada Wire & Iron Goods Co., Hamilton, Ont.
Canadian Ornamental Iron Co., Toronto, Ont.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Garth Company, The, Montreal, Que.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Hutchison & Sticht, Montreal, Que.
Meadows, The George B., Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Mitchell, The Robert Co., Ltd., Montreal, Que.
Morrison, The James, Brass Mfg. Co., Ltd., Toronto, Ont.
Schmidt & Co., Winnipeg, Man.
Shipway Iron, Bell & Wire Mfg. Co., Ltd., Toronto, Ont.
Tuttle & Bailey Mfg. Co., Bridgeburg, Ont.
Watson, John & Son, of Montreal, Ltd., Montreal, Que.
Westminster Iron Works, New Westminster, B.C.
Winnipeg Wire & Iron Works, Winnipeg, Man.

RAILINGS, Steel.

Structural Steel Co., Ltd., Montreal, Que.
Winnipeg Wire & Iron Works, Winnipeg, Man.

RAILINGS, Wood, for Altars, Banks, Etc.

Cushing Brothers Co., Ltd., Calgary, Alta.
Dempster, Estate of James, Halifax, N.S.
Globe Furniture Co., Ltd., Waterloo, Ont.
Lea, Paul, Co., Ltd., Moncton, N.B.
Lemon, Gonnason & Co., Victoria, B.C.
Ottawa Stair Works, Ottawa, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Rhodes, Curry Co., Ltd., Amherst, N.S.
Schurman, M. F., Co., Ltd., Summerside, P.E.I.
Scott, The J. C., Co., Ltd., Toronto, Ont.
Valley City Seating Co., Ltd., The, Dundas, Ont.

RAILROAD SUPPLIES.

Canadian Brake Shoe Co., Ltd., Sherbrooke, Que.
Chicago Railway Equipment Co., Walkerville, Ont.
Paget Grain Door Co., Ltd., Huntsville, Ont.
Piper, The Hiram L., Co., Ltd., Montreal, Que.
Sleeper & Akhurst, Coaticook, Que.
Standard Paint Co. of Canada, Ltd., Montreal.
Taylor and Arnold, Ltd., Montreal.

RAILS.—Rails for railways are made of steel or iron. Great Britain, the United States, and Germany are the chief producers, the first exporting considerably more than the other two countries together, a fair quantity is manufactured in Canada.

RAILS, Bessemer Steel.

Lake Superior Corporation, Sault Ste. Marie, Ont.

RAILS, Steel, Open Hearth.

Dominion Iron & Steel Co., Ltd., Sydney, N.S.
Lake Superior Corporation, Sault Ste. Marie, Ont.

RAINCOATS.

Claman Waterproof Garment Co., Montreal.
Davis, H. E., Montreal, Que.
National Rubber Company of Canada, Montreal.

RAISINS, dried grapes, exported from the south-eastern provinces of Spain, the neighbourhood of Marseilles, the south of Italy, Turkey, and Asia Minor. Currants, cultivated in Greece and the Ionian Islands, are a small variety of grape. Raisins are also dried in California. The best raisins are the muscatels of Malaga. The Sultanas of Smyrna, having no seeds, are esteemed for confectionery.

RAKES, Garden.

Bedford Mfg. Co., The, Bedford, Que.
Canada Axe & Harvest Tool Mfg. Co., Ltd., Montreal, Que.
Canada Steel Goods Co., Ltd., Hamilton, Ont.
Erie Iron Works, Ltd., St. Thomas, Ont.
Maple Leaf Harvest Tool Co., Ltd., Tillsonburg, Ont.
Welland Vale Mfg. Co., Ltd., The, St. Catharines, Ont.

RAKES, Wood (Hand).

Gignac, J. H., Ltd., Quebec, Que.
Still, F. H., Mfg. Co., Ltd., St. Thomas, Ont.
Shelters, W. A., Bedford, Que.

RAMIE. (See **GRASS CLOTH**).

RAMPUR SHAWLS. (See **SHAWLS**).

RAMS, Hydraulic.

McDougall, R., Co., Ltd., Galt, Ont.
Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.

RANGES, Gas.

A-B Stove Co. of Canada, Ltd., Montreal, Que.
Bowman Gas Range Mfg. Co., Toronto, Ont.
Buck, The William, Stove Co., Ltd., Brantford, Ont.
Burns, John, & Co., Montreal, Que.
Burrow, Stewart & Milne Co., Ltd., Hamilton, Ont.
Canada Malleable & Steel Range Co., Ltd., Oshawa, Ont.
Collins Mfg. Co., Toronto, Ont.
Gurney Foundry Co., Ltd., Toronto, Ont.
Kerr, R. & W., Ltd., Montreal, Que.
Moffat Stove Co., Ltd., Weston, Ont.
Supreme Heating Co., Ltd., Welland, Ont.

RANGES, Hotel.

Burns, John, & Co., Montreal, Que.
Burrow, Stewart & Milne Co., Ltd., Toronto.
Canada Malleable & Steel Range Co., Ltd.,
Gurney Foundry Co., Ltd., Toronto, Ont.
Kerr, R. & W., Ltd., Montreal, Que.
McClary Mfg. Co., London, Ont.
Prowse, George R., Range Co., Ltd., Montreal.
Sparrow, George, & Co., Toronto, Ont.
Western Foundry Co., Ltd., The, Wingham, Ont.

RANGES, Household.

Albion Stove Works, Victoria, B.C.
Amherst Foundry Co., Ltd., Amherst, N.S.
Barker, D. J., & Co., Picton, Ont.
Beach Foundry Co., Ltd., Winchester, Ont.
Beaver Foundry & Machinery Co., Ltd., The, Grand Mere, Que.
Bedford Stove Co., Bedford, Ont.
Belanger, A., Montmagny, Que.
Bowes, Jamieson, Ltd., Hamilton, Ont.
Buck, The William, Stove Co., Ltd., Brantford, Ont.
Burrow, Stewart & Milne Co., Ltd., Hamilton, Ont.
Canada Malleable & Steel Range Co., Ltd., Oshawa, Ont.
Canada Stove & Furniture Co., Ltd., Montreal, Que.
Canadian Heating & Ventilating Co., Ltd., Owen Sound, Ont.
Clare Bros. & Co., Ltd., Preston, Ont.
Copp Stove Co., Ltd., Fort William, Ont.
Davidson, The Thomas, Mfg. Co., Ltd., Montreal, Que., and Winnipeg, Man.
Doherty Mfg. Co., Ltd., The, Sarnia, Ont.
Enterprise Foundry Co., The, Sackville, N.B.
Farquhar Brothers, Ltd., Halifax, N.S.
Findlay Brothers Co., Ltd., Carleton Place, Ont.
Galt Stove & Furnace Co., Ltd., Galt, Ont.
Griffin, Thomas, Guelph, Ont.
Guelph Stove Co., Ltd., Guelph, Ont.
Gurney Foundry Co., Ltd., Toronto, Ont.
Hall, Zryd Foundry Co., Ltd., The, Hespeler, Ont.
Hamilton Stove & Heater Co., Ltd., Hamilton Ont.
Harriston Stove Co., Ltd., The, Harriston, Ont.
Hillis & Sons, Ltd., Halifax, N.S.
Kerr, R. & W., Ltd., Montreal, Que.
Lamarre & Cie., St. Remi, Que.
Lee Mfg. Co., Ltd., Pembroke, Ont.
McClary Mfg. Co., London, Ont.
McLean, Holt & Co., St. John, N.B.
Modern Malleable Range Co. Ltd., Chatham,N.B.
Moffat Stove Co., Ltd., Weston, Ont.
Moore, The, D. C., Ltd., Hamilton, Ont.
Record Foundry & Machine Co., Moncton, N.B.
Shaw & Mason, Ltd., Sidney, N.S.
Smart, The James Mfg. Co., Ltd., Brockville, Ont.
Stewart, The James Mfg. Co., Ltd., Woodstock, Ont.
Supreme Heating Co., Ltd., Welland, Ont.
Thompson & Sutherland, Ltd., New Glasgow, N.S.
Tilden, Gurney & Co., Ltd., Winnipeg, Man.
Victoriaville Foundry Co., Victoriaville, Que.
Western Foundry Co., Ltd., The, Wingham, Ont.
Windsor Foundry & Machine Co., Ltd., Windsor, N.S.
Wrought Iron Range Co., Ltd., Toronto, Ont.

RANGES, Malleable Iron.

Canada Malleable & Steel Range Co., Ltd., Oshawa, Ont.
Dominion Malleable Range Co., Ltd., Walkerville, Ont.
Modern Malleable Range Co., Ltd., The, Chatham, Ont.
Wrought Iron Range Co., Ltd., Toronto, Ont.

RANGES, Steel.

Amherst Foundry Co., Ltd., Amherst, N.S.
Beach Foundry Co., Ltd., Winchester, Ont.
Beaver Stove & Machinery Co., Ltd., The Grand Mere, Que.
Brantford Steel Range Co., Brantford, Ont.
Burns, John & Co., Montreal, Que.
Canada Malleable & Steel Range Mfg. Co., Ltd., Oshawa, Ont.
Canada Stove & Furniture Mfg. Co., Ltd., Montreal, Que.
Davidson, The Thomas, Mfg. Co., Ltd., Montreal, Que., and Winnipeg, Man.
Findlay Brothers Co., Ltd., Carleton Place, Ont.
Grimm Mfg. Co., Ltd., The, Montreal, Que.
Hall, Zryd Foundry Co., Ltd., The, Hespeler, Ont.
Kerr, R. & W., Ltd., Montreal, Que.
McLennan, McFeely & Co., Ltd., Vancouver, B.C.
Modern Malleable Range Co., Ltd., The, Chatham, Ont.
Moffat Stove Co., Ltd., Weston, Ont.
Moore, The, D. C., Ltd., Hamilton, Ont.
Paradis & Boisvert, Inc., Montreal, Que.
Percival Plow & Stove Co., Ltd., Merrickville, Ont.
Prowse, George R., Range Co., Ltd., Montreal.
Standard Foundry & Machine Co., Ltd., Longueuil, Que.
Supreme Heating Co., Ltd., Welland, Ont.
Thompson & Sutherland, Ltd., Orillia, Ont. N.S.
Tudhope-Anderson Co., Ltd., Orillia, Ont.
Victoriaville Foundry Co., Victoriaville, Que.
Western Foundry Co., Ltd., The, Wingham, Ont.
Wrought Iron Range Co., Ltd., Toronto, Ont.

RAPE, or coleseed, an annual plant, cultivated for its herbage and for its oil. The name rape oil is also given to colza oil extracted from a plant largely grown in India. The cake from rape seed is inferior to linseed and other oil-cakes.

RAPHIA, a palm growing in Madagascar, West Africa, and Polynesia, yields a fibre which is woven into bags, window-blinds, and tissues mixed with silk, and is made into cigarette paper. The fibre of the Jupati palm of the Amazons is used for similar purposes, and by gardeners for tying up plants.

RASPBERRY VINEGAR.

Codville Co., Ltd., The, Winnipeg, Man.
Empire Brewing Co., Ltd., Brandon, Man.
Whitby Fruit & Vinegar Co., Whitby, Ont.

RATCHETS.

Pratt & Whitney Co. of Canada, Ltd., Dundas, Ont.

RATTANS, the stems of closely-allied palms, yield the rattan canes from which baskets, lattice-work, brooms, chair bottoms, and other articles are made. They are largely exported from the East. Malacca canes grow in Sumatra.

RATTLES.

Arlington Co. of Canada, Ltd., The, Toronto.

RAWHIDE.

Barrie Tanning Co., Ltd., The, Barrie, Ont.
Wickett & Craig, Ltd., Toronto, Ont.

RAY SKINS. (See SHAGREEN).

RAZORS.

Auto Strop Safety Razor Co., Ltd., Toronto.
Gillette Safety Razor Co. of Canada, Ltd., Montreal, Que.
Jones Brothers & Co., Ltd., Toronto, Ont.

REALGAR, Bisulphide of arsenic, which occurs in nature and is one of the ores from which arsenic is obtained. Like orpiment, it is used as a pigment.

REAMERS.

Butterfield & Co., Rock Island, Que.
Canada Tool & Specialty Co., Ltd., New Glasgow, N.S.
Hamilton Tool Co., Ltd., The, Hamilton, Ont.
Jardine, A. B., & Co., Hespeler, Ont.
Mueller, H., Mfg. Co., Ltd., Sarnia, Ont.
Pratt & Whitney of Canada, Ltd., Dundas, Ont.
Whitman & Barnes Mfg. Co., St. Catharines, Ont.

REAPERS.

Cossitt Co., Ltd., The, Brockville, Ont.
Frost & Wood Co., Ltd., The, Smith's Falls, Ont.
International Harvester Co. of Canada, Ltd., Hamilton, Ont
Moody, The Matthew, & Sons, Co., Terrebonne, Que.
Massey-Harris Co., Ltd., Toronto, Ont.
Noxon Co., Ltd., The, Ingersoll, Ont.

RECORDERS, Time.

International Time Recording Co. of Canada, Ltd., The, Toronto, Ont.
Wood, W. A., Montreal, Que.

RECORDS, Gramophone, Phonograph, Etc.

Berliner Gramophone Co., Ltd., Montreal, Que.
Columbia Graphophone Co., Toronto, Ont.

RED.—For vegetable red dyes, (see **BRAZIL WOOD, SANDAL-WOOD, SAFFLOWER, MADDER**; for animal **KERMES, CARMINE** and **COCHINEAL. OCHRES** are red pigments due to the presence of oxides of iron. (See also **VERMILION, ANILINE** and **PHENOL DYES**).

RED ROOT, the root of Ceanothus Americanus, which grows in Canada and the United States, is used to dye wool a cinnamon colour.

REELS, Clothes Line.

Taylor-Forbes Co., Ltd., Guelph, Ont.
Thomas Brothers, Ltd., St. Thomas, Ont.

REELS, Lawn Hose.

McKinnon Dash Co., St. Catharines, Ont.

REELS AND WAGONS, Fire Hose.

Brandon Fire Engine Co., Ltd., The, Brandon, Man.
Seagrave, W. E. & Co., Walkerville, Ont.
Smith Brothers, Toronto, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.
Wilson & Cousins, Toronto, Ont.

REFINERS, Cotton Seed Oil.

Swift Canadian Co., Ltd., West Toronto, Ont.

REFINERS, Gold, Silver and Platinum.

British Canadian Smelters, Ltd., Toronto, Ont.
Canada Refining & Smelting Co., Toronto, Ont.
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
Goldsmith Brothers Smelting & Refining Co., Ltd., Toronto, Ont.
Lees, George H., & Co., Ltd., Hamilton, Ont.

REFLECTORS, Mirror (Lamp, Window and Show Case).

Edmunds, J. H., & Co., Toronto, Ont.
Piper, The Hiram L., Co., Ltd., Montreal, Que.
Piper, The N. L., Railway Supply Co., Ltd., Toronto, Ont.

REFRIGERATORS.

Barnet Mfg. Co., Ltd., The, Renfrew, Ont.
Cossitt Co., Ltd., The, Brockville, Ont.
Davidson, James, Ottawa, Ont.
Davidson, The Thomas, Mfg. Co., Ltd., Montreal, Que., and Winnipeg, Man.
Eureka Refrigerator Co., Ltd., The, Toronto, Ont.
Fabien, C. P., Montreal, Que.
Fletcher Mfg. Co., Ltd., Toronto, Ont.
Ham & Nott Co., Ltd., The, Brantford, Ont.
Hamilton Ideal Mfg. Co., Ltd., Hamilton, Ont.
Hillock, John & Co., Ltd., Toronto, Ont.
Lee Mfg. Co., Ltd., Pembroke, Ont.
Ottawa Stair Works, Ottawa, Ont.
Prowse, George R., Range Co., Ltd., Montreal.
Ryan Brothers, Winnipeg, Man.
Sanderson-Harold Co., Ltd., Paris, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Sussex Mfg. Co., Ltd., Sussex, N.B.
Westport Woodworking Co., Ltd., Westport, Ont.
Wolf, Sayer & Heller, Montreal, Que.

REGALIA, Society and Lodge.

Dominion Regalia Co., Ltd., Toronto, Ont.
Mortimore & Blackeby, Toronto, Ont.
Scully, William, Montreal, Que.

REGISTERS, Account.

Appleford Counter Check Book Co., Ltd., Hamilton, Ont.
Autographic Register Co. of Canada, Ltd., Montreal, Que.
Dominion Register Co., Ltd., Toronto, Ont.
Hamilton Ideal Mfg. Co., Ltd., Hamilton, Ont.

REGISTERS, Cash.

National Cash Register Co., The, Toronto, Ont.

REGISTERS, Hot Air.

Buck, The William, Stove Co., Ltd., Brantford, Ont.
Burrow, Stewart & Milne Co., Ltd., The, Hamilton, Ont.
Canadian Heating & Ventilating Co., Ltd., Owen Sound, Ont.
Clare Brothers & Co., Ltd., Preston, Ont.
Gurney Foundry & Co., Ltd., Preston, Ont.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
McClary Mfg. Co., London, Ont.
Pease Foundry Co., Ltd., Toronto, Ont.
Pease-Waldron Co, Ltd., Winnipeg, Man.
Plessisville Foundry Co., Ltd., The, Plessisville, Que.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.

Stewart, The James, Mfg. Co., Ltd., Woodstock, Ont.
Toronto Furnace & Crematory Co., Ltd., Toronto, Ont.
Tuttle & Bailey Mfg. Co., Bridgeburg, Ont.
Welch, A., & Son, Toronto, Ont.

REINDEER.—Reindeer tongues are exported from Russia, and the horns are sometimes sent to market. The reindeer is found in Northern Europe, Asia, and America. The female also bears antlers, which is not the case with any other species of deer.

REINDEER MOSS, a lichen, used to a small extent by bird-stuffers to ornament cases.

REMOVER, Paint and Varnish.

Dougall Varnish Co., Ltd., The, Montreal, Que.
Holland Paint & Varnish Co., Ltd., Montreal, Que.
Moore, Benjamin, & Co., Ltd., Toronto, Ont.
Rubber Substitutes Co., Ltd., Montreal, Que.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.

REMOVER, Carbon.

Prest-o-lite Company, The, Toronto, Ont.

REP, a strong worsted fabric made for covering furniture.

RESAWS.

Berlin Machine Works, Ltd., Hamilton, Ont.
Bertrand, La Cie, F. X., Manufacturiere, Ltd., St. Hyacinthe, Que.
Canada Machinery Corporation, Ltd., Galt., Ont.
Cowan & Co., of Galt, Ltd., Galt, Ont.
Hamilton, William Co., Ltd., Peterborough, Ont.
Jackson, Cochrane & Co., Berlin, Ont.
McLennan Foundry & Machine Works, Ltd., Campbellton, N.B.
McOuat, T., & Son, Lachute Mills, Que.
St. John Iron Works, Ltd., St. John, N.B.

RESINS, vegetable products composed of carbon, hydrogen, and oxygen. Common resin, or rosin, exudes from the trunks of various kinds of pine, and has to be freed from its turpentine. It is used in making common yellow soap, sizing paper, &c. For other resins, (See **ANIME, COPAL, DAMMAR, MASTIC, LAC, KAURI GUM, &c.**)

RETORTS, Canning Factory (Processing).

Letson & Burpee, Ltd., Vancouver, B.C.
West & Peachy, Simcoe, Ont.

RETORTS AND CONDENSERS, Amalgam.

MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.

RHATANY ROOT, or Ratanhia, the root of a shrubby plant, which grows on the cold tablelands of South America. The best comes from Peru. It is a powerful astringent, and is used in medicine. Powdered, it forms a dentifrice.

RHEA FIBRE. (See GRASS CLOTH).

RHEOSTATE, Electric.

Canadian Crocker-Wheeler Co., Ltd., The, St. Catherines, Ont.
Canadian General Electric Co., Ltd., Toronto.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Monarch Electric Co., Ltd., St. Lambert, Que.
Wells, W. W., Toronto, Ont.

RHINOCEROS.—Species of this animal are found in Southern Asia and in Africa. The hide is manufactured into shields, whips, &c., but the horns are the principal articles of commerce. They are formed into cups, handles for sticks, whips, umbrellas, &c.

RHUBARB.—The root of Rheum officinale and other varieties is dried and exported from China to Europe, where it is used as a medicine. It is generally known as Turkey rhubarb, because it was formerly introduced into Europe through Turkey. A considerable quantity is now grown in the gardens of America and all European countries, and this rhubarb cannot easily be distinguished from the Eastern article.

RIBBONS.—Ribbons are usually manufactured of silk, mixed silk, and velvet. The chief seats of the manufacture are St. Etienne in France, Crefeld, Basel, Vienna, and Coventry. France and Germany are large exporters.

RIBBONS, Silk.

Belding-Paul-Corticelli, Ltd., Montreal, Que.
Peters, J. Henry, Co., Toronto, Ont.

RIBBONS, Typewriter.

Canadian Typewriter Co., Montreal, Que.
Carter's Ink Co., Montreal, Que.
Peerless Carbon & Ribbon Mfg. Co., Ltd., Toronto, Ont.
Underwood, John, & Co., Toronto, Ont.
United Typewriter Co., Ltd., Toronto, Ont.
Wilson Carbon Paper Co., Ltd., The, Montreal, Que.

RICE, next to wheat, rice is the most important cereal, forming the chief food of many millions of people in the East and Southeast of Asia and being consumed in smaller quantities in most parts of the globe. There is only one important species which thrives in both tropical and subtropical countries. It is an annual, varying in height from one to six feet. Rice requires to be flooded at certain seasons and to be well drained. Therefore it is usually cultivated in valley bottoms where the water can easily be poured over the ground and drained off again by irrigation channels. Some varieties are cultivated on higher lands but yield a small crop and of inferior quality. When the husk is removed from the rough rice or paddy, the weight is thereby reduced by one-fifth to one-third. Rice, containing a smaller proportion of nitrogenous elements than any other grain, is less nutritious and being deficient in gluten, cannot be properly fermented and made into bread. The Japanese and Chinese make intoxicating liquors from Rice by adding ferments. In Europe it is largely employed for the extraction of starch. The refuse is excellent food for cattle and the straw is a valuable fodder and in the East is made into plait for hats and shoes. The production in United States has increased rapidly during the last few years. The Canadian importation of uncleaned, unhulled or paddy rice, amounted to 24,402 tons during the fiscal year ending March 31st, 1914, and to 6,560 tons of cleaned rice.

The world's crop of rice for 1913—the last year for which there are complete returns—

amounted to over 90,000,000,000 pounds, of which British India produced over 63,000,000,000 pounds, and the rest of the Asiatic countries 25,000,000,000 pounds. The production in United States amounted to 740,931,000 pounds.

RICE AND RICE PRODUCTS.

Mount Royal Milling and Mfg. Co., Montreal,

RICE PAPER, the pith of Aralia papyrifera cut spirally and opened out into a flat sheet. It is made in China, and used to make coloured drawings on, for artificial flowers, &c.

RIDDLES, Foundry.

Canada Wire & Iron Goods Co., Hamilton, Ont.
Hamilton Facing Mills Co., Ltd., Hamilton, Ont.
Major Mfg. Co., Ltd., The, Montreal, Que.
Meadows, George B., Wire & Brass Works Co., Ltd., Toronto, Ont.

RIFLES, Military and Sporting.

Ross Rifle Company, Quebec, Que.
Tobin Arms Mfg. Co., Ltd., Woodstock, Ont.

RIFLE SIGHTS.

Canadian Tool and Specialty Co., Ltd., New Glasgow, N.S.

RIMS, Wood, Buggy, Carriage, Etc.

Ackland, D., & Son, Ltd., Winnipeg, Man.
Canada Wheel Works, Ltd., Merritton, Ont.
Crown Lumber Co., Ltd., Woodstock, Ont.
Finlay, J., & Sons Co., Norwood, Ont.
Heard, John, & Co., St. Thomas, Ont.
Hore, F. W., & Son, Ltd., Hamilton, Ont.
Loughead Brothers, Ltd., Sarnia, Ont.
McVean, O. & W., Dresden, Ont.
McKillop & Sons, Ltd., West Lorne, Ont.
Victoria Wheel Works, Galt, Ont.
Windsor Turned Goods Co., Ltd., Windsor, Ont.

RINGS, Chain.

Coghlin, B. J., Co., Ltd., Montreal, Que.

RINGS, Gold, Etc. (See Jewelry.)

RINGS, Napkin.

Arlington Co. of Canada, Ltd., The, Toronto.

RINGS, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.

RIVETERS, Pneumatic.

Canadian Pneumatic Tool Co., Ltd., Montreal.

RIVETS, Belt.

Gibson, W. J., Gananoque, Ont.
Parmenter & Bulloch Co., Ltd., The, Gananoque, Ont.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.

RIVETS, Boot and Shoe.

Morrisburg Tack Mfg. Co., Ltd., Morrisburg, Ont.

RIVETS, Copper and Brass.

Parmenter & Bulloch Co., Ltd., The, Gananoque, Ont.
Robertson, P. L., Mfg. Co., Ltd., Milton, Ont.
Steel Co. of Canada, Ltd., Hamilton and Toronto, Ont. and Montreal, Que.

RIVETS, Iron and Steel.

Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
Northern Belt & Screw Co., Ltd., Owen Sound, Ont.
Parmenter & Bulloch Co., Ltd., The, Gananoque, Ont.
Phoenix Bridge & Iron Works, Ltd., Montreal, Que.
Robertson, P. L., Mfg. Co., Ltd., Milton, Ont.
Starr Mfg. Co., Ltd., Dartmouth, N.S.
Steel Co., of Canada, Ltd., Toronto, Ont., and Montreal, Que.
Structural Steel Co., Ltd., Montreal, Que.

RIVETS, Tinned.

Steel Co. of Canada, Ltd., Hamilton, Ont., and Toronto, Ont., and Montreal, Que.

RIVETS, Tubular.

Gibson, W. J. Gananoque, Ont.
Parmenter & Bulloch Co., Ltd., The, Gananoque, Ont.

ROAD BINDERS, Bituminous.

Canadian Mineral Rubber Co., Ltd., Winnipeg
Paterson Mfg. Co., Ltd., The, Toronto, Ont., and Montreal, Que.

ROASTERS, Peanut.

Fletcher Mfg. Co., Ltd., Toronto, Ont.

ROBES.

Berlin Robe & Clothing Co., Berlin, Ont.
Sovereen Mitt ,Glove & Robe Co., Delhi, Ont.
Galt Robe Co., Galt, Ont.

ROBES, Baby Carriage, Lambskin.

Bruce Mfg. Co., Toronto, Ont.
Howe, A. T., & Son, Toronto, Ont.

ROBES, Burial.

Elliott, James S., & Son, Prescott, Ont.
Evel Casket Co., Ltd., Hamilton, Ont.
Girard & Godin, Three Rivers, Que.
Globe Casket Co., The, London, Ont.
Harriston Casket Co., Ltd., The, Harriston, Ont.
National Casket Company, Toronto, Ont.
Semmens & Evel Casket Co., Ltd., Hamilton, Ont.
Winnipeg Casket Co., Ltd., Winnipeg, Man.

ROBES, Carriage.

Gananoque Harness Works, Ltd., Gananoque, Ont.

ROBES, Fur.

Allan, A. A., & Co., Ltd., Toronto, Ont.
Berlin Robe & Clothing Co., Ltd., Berlin, Ont.
Bishop, The J. H., Co., Sandwich, Ont.
Boulter, Waugh & Co., Ltd., Montreal, Que.
Bourdeau, J. & Son, Montreal, Que.
Brandon Tannery, Ltd., Brandon, Man.
Bremner, Alexander, Tillsonburg, Ont.
Brereton & Steward, Toronto, Ont.
Coristine, James, & Co., Ltd., Montreal, Que.
Davidson, W. H., & Co., Brandon, Man.
Dechene & Poulin, Quebec, Que.
Delhi Mfg. Co., The, Delhi, Ont.
Galt Robe Co., Galt, Ont.
Gillespie Fur Co., Ltd., The, Toronto, Ont.
Gnaedinger, L., Son & Co., Montreal, Que.
Holt, Renfrew & Co., Quebec, Que.
Laliberte, J. B., Quebec, Que.
Redmond Company, Ltd., The, Montreal, Que.
Sandham & Thurston, Toronto, Ont.
Sovereen Mitt, Glove and Robe Co., The, Delhi, Ont.

ROCHELLE SALT, tartrate of soda and potash, which acts as a mild aperient, and is an ingredient of some Seidlitz powders.

ROCK ALUM, or Alumite. A mineral composed of sulphate of potash and sulphate of alumina, from which alum is obtained. It occurs at Edessa, Tolfa near Civita Vecchia, in the Auvergne, Hungary, &c.

ROCKING HORSES.

Berlin Wooden Ware Co., Berlin, Ont.
Schultz Brothers Co., Ltd., The, Brantford, Ont.
Taylor, Scott & Co., Ltd., Palmerston, Ont.

ROCK SALT. (See SALT).

RODS, Aluminum.

Northern Aluminum Co., Ltd., Toronto, Ont.

RODS, Brass.

Brown's Copper & Brass Rolling Mills, Ltd., New Toronto, Ont.
Hahn Brass Co., Ltd., The, New Hamburg, Ont.
Hamilton Brass Mfg. Co., Ltd., Hamilton, Ont.
Smith Foundry Co., Ltd., The, Fredericton, N.B.
Stratford Brass Co., Ltd., The, Stratford, Ont.

RODS, Bronze.

Brown's Copper & Brass Rolling Mills, Ltd., New Toronto, Ont.

RODS, Copper.

Brown's Copper & Brass Rolling Mills, Ltd., New Toronto, Ont.
Empire Lightning Rod Co., Ltd., Winnipeg, Man.
Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

RODS, Hard Rubber.

Dunlop Tire & Rubber Goods Co., Ltd., Toronto.

RODS (Iron and Steel).

Hamilton Bridge Works Co., Ltd., The, Hamilton, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
National Bridge Co. of Canada, Ltd., Montreal, Que.
Saskatchewan Bridge & Iron Co., Ltd., Moose Jaw, Sask.
Smith Foundry Co., Ltd., The, Fredericton, N.B.
Structural Steel Co., Ltd., Montreal, Que.

RODS, Steel, Open Hearth.

Dominion Iron & Steel Co., Ltd., Sydney, N.S.

ROGUE. (See COD).

ROHUN BARK, Indian name for the bark of Soymida febrifuga, a bitter astringent.

ROLLERS, Blind and Window Shade.

Hartshorn, The Stewart, Co., Toronto, Ont.

ROLLERS, Garden and Lawn.

Bateman-Wilkinson Co., Ltd., Toronto, Ont.
Bruce Agricultural Works, The, Teeswater, Ont.
Erie Iron Works, Ltd., St. Thomas, Ont.
James & Reid, Perth, Ont.
London Foundry Co., Ltd., The, London, Ont.
Smart, The Jas. Mfg., Co., Ltd., Brockville, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.

ROLLERS, Land.

Bateman-Wilkinson Co., Ltd., Toronto, Ont.
Bell, B., & Son Co., Ltd., St. George, Ont.
Bissell, T. E., Co., Ltd., Elora Ont.
Bruce Agricultural Works, The, Teeswater, Ont.
Frost & Wood Co., Ltd., The, Smith's Falls, Ont.
International Harvester Co. of Canada, Ltd., Hamilton, Ont.
Moody, The Matthew, & Sons, Co., Terrebonne, Que.
Verity Plow Co., Ltd., Brantford, Ont.
Vilas, W. F., Cowansville, Que.

ROLLERS, Printers'.

Ault & Wiborg Co., of Canada, Ltd., Toronto,
Bush, Chas., Ltd., Toronto, Ont.
Canada Printing Ink Co., Ltd., Toronto, Ont.
Manton Brothers, Toronto, Ont.
Robertson, J. S., Montreal, Que.

ROLLERS, Road (Horse.)

American Road Machine Co. of Canada, Ltd., Goderich, Ont.

ROLLERS, Road (Steam and Gas.)

Bell, The Robt., Engine & Thresher Co., Ltd., Seaforth, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Climax Good Roads Machinery Co., Ltd., Hamilton, Ont.
General Car Machinery Works, Montmagny, Que.
Sawyer-Massey Co., Ltd., Hamilton, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

ROLLERS, Snow.

Moody, The Matthew, & Sons, Co., Terrebonne, Que.

ROLLERS, Towel.

Thomas Bros., Ltd., St. Thomas, Ont.

ROLLS, Music, Leather.

Eagle Leather Works, Montreal, Que.
Standard Leather Goods, Ltd., Montreal, Que.

ROLLS, Plate Bending and Straightening.

Bertram, John, & Sons, Ltd., Dundas, Ont.
Canada Machinery Corporation, Ltd., Galt., Ont.

ROLLS, Rubber Covered.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
Gutta Percha & Rubber, Ltd., Toronto, Ont.

ROLLS, Wringer.

Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
Gutta Percha & Rubber, Ltd., Toronto, Ont.

ROOM, a blue dye, little inferior to indigo, derived from the leaves of Indian plants.

ROOFING, Asbestos.

Asbestos Mfg. Co., Ltd., The, Montreal, Que.
Canadian H. W. Johns-Manville Co., Ltd., The, Toronto, Ont.

ROOFING, Concrete.

Canadian Flexotile & Construction, Ltd., Winnipeg, Man.
National Builders' Supply & Enamel Concrete Brick Co., Ltd., Montreal, Que.

ROOFING, Iron, Copper, Tin and Galvanized.

Aubry, A., & Fils, Montreal, Que.
Canadian Metal Shelter Co., Winnipeg, Man.
Donohue, Jas., Halifax, N.S.
Farquhar Bros., Ltd., Halifax, N.S.
Galt Art Metal Co., Ltd., Galt, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Metallic Ceilings and Siding Co., Montreal.
Metallic Roofing Co. of Canada, Ltd., The, Toronto, Ont.
Ormsby, A. B., Co., Ltd., Toronto, Ont., and Winnipeg, Man.
Pedlar People, Ltd., The, Oshawa, Ont.

Riddell, Josh E. & Son, Hamilton, Ont.
Roofers' Supply Co., Ltd., Toronto, Ont.
Shaw & Mason, Ltd., Sydney, N.S.
Steel & Radiation, Ltd., Toronto, Ont.
Wheeler & Bain, Toronto, Ont.

ROOFING (Prepared), Asphalt, Felt, Pitch and Tarred, Etc.).

Bird, F. W., & Son, Hamilton, Ont.
Brantford Roofing Co., Ltd., Brantford, Ont.
Canadian Mineral Rubber Co., Ltd., Winnipeg.
Canadian Roofing Mfg. Co., Ltd., Windsor, Ont.
Carritte, de B., St. John, N.B.
Carritte-Paterson Mfg. Co., Ltd., St. John, N.B.
Ford, Rowland & Son, Portneuf Station, Que.
Hamilton Tar Distilling Co., Hamilton, Ont.
McArthur, Alex., & Co., Ltd., Montreal, Que.
McComb, J. H., Ltd., Montreal, Que.
Merrick Anderson Co. Winnipeg Man.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Paterson Mfg. Co., Ltd., Montreal, Que., and Toronto, Ont.
Roofers' Supply Co., Ltd., Toronto, Ont.
Shaw & Mason, Ltd., Sydney, N.S.
Sidney Rubber Roofing Co., Sydney, B.C.
Standard Paint Co. of Canada, Ltd., Montreal.

ROOFING, Rubber.

Canadian Roofing Mfg. Co., Ltd., Windsor, Ont.
McComb, J. H., Ltd., Montreal.

ROPE.—The principal materials used for the manufacture of ropes are manila hemp, sisal hemp, coir, sunn hemp, and New Zeland hemp, all which are described separately. There are numbers of other fibres used locally or in smaller quantities.

ROPE, Cotton, Linen, Jute and Hemp.

Consumers' Cordage Co., Ltd., Montreal, Que.

ROPES, Wire.

Dominion Wire Rope Co., Ltd., Montreal, Que.
Greening, The B., Wire Co., Ltd., Hamilton. Ont.
Wilson, James, Merritton, Ont.

ROSE MALLOES, a corruption of the Malay name for liquid storax.

ROSEMARY.—This shrub contains an essential oil, which, as well as a distilled spirit, is used in liniments and perfumery. The south of France, Italy, and Spain are the chief countries of origin.

ROSE OIL. (See ATTAR OF ROSES).

ROSEWOOD.—A wood growing in Brazil and the adjoining countries. The best is exported from Bahia and Rio de Janeiro. An inferior rosewood is exported from Honduras.

ROSIN. (See RESIN).

ROSOGLIO, liqueur made in Italy and flavoured with fruits and flowers, especially orange flowers.

ROTTEN STONE, a soft stone, consisting of alumina with 10 per cent. of carbonaceous matter and a little silica. It occurs in Derbyshire, in Wales, and near Albany in the State of New York. It is used for cleaning metals and for other purposes to which tripoli also is applied.

ROUGE.—Rouge for the skin is made of carmine or vermilion mixed with French chalk and sometimes a little oil. Jewellers' rouge is a red preparation from oxide of iron, and is used for polishing silver. Inferior varieties are also sold.

ROVE, the oak gall.

RUBBER.—India-rubber or caoutchouc is the inspissated trees and plants of several species. The rubber of the Amazons basin is drawn from the Heveas. Ordinarily a rubber tree will give about 8 ounces of rubber in its 7th year, 10 ounces in the next year, while trees from 11 to 13 years old will yield from 1½ to 2 pounds. Old trees have been known to yield as much as 13 or 14 pounds. On the Amazon, one of the principal producing districts in South America, the latex or juice is coagulated by the heat and smoke from a wood fire and moulded into balls. In the rubber plantations the latex is placed in cans and the moisture is pressed out of the cakes of rubber ("biscuits") which collect on the top. A little acetic acid hastens the coagulation. The gutta-percha tree is generally felled, though the sap can be tapped. New machines have been introduced which turn out the rubber in thin sheets, "crepe-rubber" or cut into fine shreds or "worm-rubber." Rubber is made into a large variety of articles, buffers, piping, fire-hose, mats, machine belting, water-proof coverings, cushions, rubber clothing, boots, etc., and of late years bicycle tires and still more recently motor car tires have absorbed a large quantity.

Rubber plantations, particularly in Ceylon and the East Indies have been largely resorted to lately to supply the increasing demand. The total importations of rubber, gutta-percha and manufactures thereof, into Canada during the fiscal year ending March 31st, 1914, amounted to $8,994,473. The exportations amounted to $1,135,852.

RUBBER GOODS, Moulded Goods and Sundries.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto,
Goodyear Tire & Rubber Co., of Canada, Ltd., Toronto, Ont.
Gutta Percha & Rubber, Ltd., Toronto, Ont.
Independent Rubber Co., Merritton, Ont.
Plastics, Ltd., Toronto, Ont.

RUBBERS.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Independent Rubber Co., Merritton, Ont.
Kaufman Rubber Co., Ltd., Berlin, Ont.
Miner Rubber Co., Ltd., Granby, Que.

RUBY.—This stone is a clear corundum of a red colour. The chief mines are in Upper Burma, where the pigeons' blood stones are found. Siam produces stones of an inferior quality, and rubies occur in Borneo. In Ceylon purplish rubies are found. The finest ruby belongs to the Shah of Persia, and weighs 175 carats. Spinel is a stone composed of a double aluminate of magnesia and silica with traces of iron, and is a little less transparent than the oriental ruby. When rose-red in colour it is called Balas ruby.

RUE.—The common garden rue contains an acrid volatile oil, which is administered in syrup as a medicine.

RUGS, Auto.

Oxford Worsted Co., Ltd., Amherst, N.S.
Tower Canadian, Ltd., Toronto, Ont.

RUGS, Axminster, Brussels and Wilton.

Brinton Carpet Co., Peterborough, Ont.
Canadian Carpet & Comforter Mfg. Co., Ltd., Toronto, Ont.
Dominion Axminster Co., Ltd., The, Toronto.
Guelph Carpet Mills Co., Ltd., The, Guelph, Ont.
Perth Carpet Co., Ltd., Perth, Ont.
Toronto Carpet Mfg. Co., Ltd., Toronto, Ont.

RUGS, Carriage.

Auburn Woollen Co., Ltd., Peterborough, Ont.
Brook Woollen Co. of Simcoe, Ltd., Simcoe, Ont.
Bruce Mfg. Co., Toronto, Ont.
Galt Robe Company, The, Galt, Ont.
Glen Woollen Mills, Ltd., Glen Williams, Ont.
Holt. Renfrew & Co., Quebec, Que.
Newlands & Company, Galt, Ont.
Sandham & Thurston, Toronto, Ont.

RUGS, Floor, Mounted Skins.

Sandham & Thurston, Toronto, Ont.

RUGS, Travelling.

Caldwell, Boyd & Co., Lanark, Ont.

RUGS, Velvet.

Guelph Carpet Mills Co., Ltd., The, Guelph, Ont.

RUGS, Waterproof.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Guelph Oiled Clothing Co., Ltd., The, Guelph, Ont.
Tower Canadian, Ltd., Toronto, Ont.

RULE, Printers' Brass

Stewart, Geo. M., Montreal, Que.
Toronto Type Foundry Co., Ltd., Montreal.

RULES, Board and Log.

Lufkin Rule Co. of Canada, Ltd., The, Windsor, Ont.

RULES, Steel, Brass and Log.

Lufkin Rule Co. of Canada, Ltd., The, Windsor, Ont.
Toronto Woodworking Co., Toronto, Ont.

RUM, a spirit made wherever sugar-cane is grown. The best is made from the skimmings of the sugar pans and the lowest quality from molasses. Sometimes pineapple and guava are used to flavour the spirit. Jamaica rum is most esteemed, and then Demerara. The spirit is also exported from the French West Indian islands.

RUNNERS, Cutter and Sleigh.

Ackland, D., & Son, Ltd., Winnipeg, Man.
Crown Lumber Co., Ltd., Woodstock, Ont.
Finlay, J., & Sons Co., Norwood, Ont.
Heard, John, & Co., St. Thomas, Ont.
Loughead Bros., Ltd., Sarnia, Ont.
McVean, O. & W., Dresden, Ont.
Windsor Turned Goods Co., Ltd., Windsor, Ont.

RUSA OIL, an essential oil obtained in the East Indies. (See **GRASS OILS**).

RUSAUT, a medicinal extract from the bark and wood of an Indian barberry.

RUSH.—The common rush and the soft rush are used for the seats of chairs, mats, &c., and the latter is cultivated in Japan. The pith is sometimes made into wics. Rush hats are exported from China to Europe. (See also **DUTCH RUSHES**).

RUSSIA LEATHER. (See **LEATHER**).

RYE, a cereal allied to wheat and barley which is grown in most European countries, particularly Russia, Germany, Holland and Belgium, where it is much used as a bread stuff. It is also grown in United States, Canada, Argentina and Australia, where it is used as a fodder and also for the manufacture of spirits, particularly whisky and gin. The straw is very tough and forms excellent plait. It is generally grown as a winter crop.

The world's production of rye in the year 1914, amounted to 1,729,625,000 bushels, of which

	Bushels.
Russia produced..	909,982,000
Germany	440,000,000
Austria-Hungary	142,703,000
France	50,000,000
United States	42,779,000
Spain	27,599,000
Servia	23,950,000
Belgium	21,000,000
Denmark	17,000,000
Netherlands	14,635,000
Finland..	10,806,000
Bulgaria	9,842,000
Italy	5,260,000
Argentine Republic	3,346,000
Canada	2,017,000

S

SABADILLA SEEDS, the fruits of a Mexican plant, from which an alkaloid, veratrine, is extracted and administered in cases of rheumatism and neuralgia. It is cultivated near Vera Cruz, and large quantities are exported from Venezuela.

SABLE.—This animal, a species of marten, is a native of Siberia, and furnishes one of the most valuable furs. Skins being demanded by the Russian Government as a tax, the sable has become scarce in many parts of the country. (See also **ALASKA SABLE** and **MARTEN**).

SACCHARINE, a sweet substance prepared from coal-tar. It has great sweetening powers, and is used by brewers, and in the manufacture of preserves, &c., and by invalids as a substitute for sugar.

SACKS.—Sacks are made of hemp, jute, and other coarse fibres to hold flour, grain, hops, sugar, cocoa, coffee, pepper, &c.

SACKS, Flour (Paper.)

Eddy, The E. B. Co., Ltd., Hull, Que.
Lincoln Paper Mills, Ltd., The, Merritton, Ont.
Wilson, J. C., Ltd., Montreal, Que.

SACKS, Ore (Jute.)

Canadian Bag Company, Montreal, Que.
Smart-Woods, Ltd., Montreal, Que.

SADDLERY.—Saddles, haress, and other horse-gear are included under this name.

SADDLES, Gig, Cart, Etc.

Ackerman, B. F., Son & Co., Peterborough, Ont.
Adams Bros. Harness Mfg. Co., Ltd., Toronto.
Birt Saddlery Co., Ltd., Winnipeg, Man.
Great West Saddlery Co., Ltd., The, Winnipeg, Man.
Rudd, Geo. A. & Co., Ltd., Toronto, Ont.
Trees, Samuel & Co., Ltd., Toronto, Ont.
Wilson, M. J., & Sons, Ottawa, Ont.

SADDLES, Riding, Military and Cowboy.

Adams Bros. Harness Mfg. Co., Ltd., Toronto.
Alberta Saddlery Co., Ltd., Lethbridge, Alta.
Birt Saddlery Co., Ltd., Winnipeg, Man.
Calgary Saddlery Co., Ltd., Calgary, Alta.
Great West Saddlery Co., Ltd., The, Winnipeg, Man.
Heney Carriage & Harness Co., Ltd., Montreal.
Jolley, Jas., & Sons, Ltd., Hamilton, Ont.
Kelly's, Ltd., Halifax, N.S.
Lamontagne, Ltd., Montreal, Que.
Norris, F., & Sons, Victoria, B. C.
Rudd, Geo. A. & Co., Ltd., Toronto, Ont.
Wilson, M. J., & Sons, Ottawa, Ont.

SAFES.

Ahearn Safe Co., Ltd., Montreal, Que.
Dominion Safe & Vault Co., Ltd., Farnham, Que.
Goldie & McCulloch Co., Ltd., The, Galt, Ont
Paradis & Boisvert, Inc., Montreal, Que.
Schmidt & Company, Winnipeg, Man.

SAFFLOWER, a plant which is cultivated in Spain, Southern Germany, Egypt, Persia, the East Indies, and Central America, for the sake of the dye yielded by its flowers. By treating the flowers with an alkaline solution a fine red dye called carthamine is obtained. Persia and Bengal produce the best safflower. Aniline has almost driven this dye-stuff out of the market.

SAFFRON, the dried stigmas of Crocus sativus, which yield a yellow dye. The plant is cultivated in several countries of Europe, the East, and America, but as a dye it is no longer important. In India and Persia it is largely used as a condiment. Of European countries Spain produces the most, and Lower Austria the best quality.

SAGAPENUM, a resinous exudation from Ferula Persica, in yellowish, brownish, or reddish grains. It is prescribed for the same purposes as asafœtida.

SAGE.—The leaves of the common sage are an article of commerce. They contain an essential oil, sometimes used as a remedy for rheumatism.

SAGO is the pith of several species of palm, but chiefly of the Sagos palm. Each tree yields about 600 pounds of pith. The sago palm is a native of the Malay Archipelago and New Guinea and are cultivated in the Malay Peninsula and Cochin-China. Large quantities are exported chiefly through Singapore in the form of common brown sago, sago flour and pearl sago. The last is prepared by the Chinese and is in small white spherical grains. The pith of several other trees is similarly prepared and is called sago. West India sago is obtained from cycads. Sago is used in cookery, is given to fowls and is utilized by starch and cocoa manufacturers.

SAILS.

Bromley & Hague, Ltd., Winnipeg, Man.
Dean, Walter, Toronto, Ont.
Forhan, Thos. & Co., Halifax, N.S.
Holder, Geo. E., St. John, N.B.
Leckie, John, Ltd., Toronto, Ont.
Lipsett, Edward, Vancouver, B.C.
Merchants' Awning Co., Ltd., Montreal, Que.
Peterborough Canoe Co., Ltd., Peterborough, Ont.
Pike, The D. Co., Ltd., Toronto, Ont.
Smart-Woods, Ltd., Ottawa, Ont.

SAKE, a Japanese spirit made from rice.

SAL, an Indian tree, the wood of which is inferior only to teak. Its resin is used locally as a substitute for dammar.

SALAD OIL.—Generally supposed to be olive oil, but cotton-seed, poppy, and many other oils are sold under this name, and are often mixed with olive oil.

SAL AMMONIAC, ammonia hydrochlorate. This salt occurs on the fissures of the lavas of Vesuvius and Etna, and in Bokhara; most, however, is prepared artifically from the ammoniacal liquor of gas works. Its chief applications are in the manufacture of colours, oilcloths, in tinning metals, and in soldering.

SALEP, the dried fecula of several species of orchid. Western Germany and France produce salep, but most comes from Smyrna. Mixed with water, sugar, and milk it makes a good diet drink.

SALICIN, a glucoside obtained from the bark of various species of willow and poplar. It occurs in small white crystals, very bitter to the taste. It is administered as a substitute for quinine, as a stomachic, and a remedy for chronic catarrh.

SALICYLATES.
Merck & Co., Montreal.

SALMON.—The European salmon is found in all the waters of Europe as far south as the Loire. It is fished on the shores and in the rivers of Norway, Great Britain, and Iceland, in the Rhine, the Elbe, and the Weser, and is eaten fresh, smoked, and salted. The salmon of the Atlantic coast of America is caught as far south as the Hudson River, and is of the same species as the European fish. The salmon of the Pacific coast is able to bear a higher temperature, and differs in many other respects from the European species. The King or Quinnat salmon of Alaska, the Humpback salmon, and the red salmon are the most abundant. Salmon are caught in large quantities and tinned on the Columbia River, Oregon, the Fraser River, British Columbia and Alaska. **(See FISH).**

SALMON, Salted.

British Columbia Canning Co., Ltd., Victoria, B.C.

SAL PRUNELLE, purified nitre, in flat round cakes and small balls. **(See SALTPETRE).**

SALT.—Chloride of sodium, or common salt, occurs in the form of rock salt, or in brine springs, in many countries, the most noted mines being those of Wieliczka in Galicia. In Spain, Italy, and France salt (bay salt) is also obtained by evaporating sea-water. The United States is an importing country, though large quantities of salt are worked in the States of Michigan and New York, and some in other States. Great Britain, France, and Spain are the principal exporting countries. About twelve million tons are manufactured annually throughout the world. Salt is largely used in preserving meat, fish, and other provisions, and from it the other salts of soda are manufactured. Spirits of salt is a name for muriatic acid.

SALT, Dairy, Table, Fine and Coarse.

Canadian Alkali Co., Ltd., The, Windsor, Ont.
Canadian Salt Co., Ltd., Windsor, Ont.
Dominion Salt Co., Ltd., The, Sarnia, Ont.
North Channel Lumber Co., Ltd., Thessalon, Ont.
Ontario People's Salt & Soda Co., Ltd., Kincardine, Ont.
Ransford, John, Clinton, Ont.
Western Canada Flour Mills Co., Ltd., Toronto, Ont., and Winnipeg, Man.
Western Salt Co., Ltd., The, Courtright, Ont.

SALT, Nickel, for Plating.

Canadian Hanson & Van Winkle Co., Ltd., Toronto, Ont.

SALTS, Glauber, Epsom and Mineral.

Nichols Chemical Co., of Canada, Ltd., The, Montreal, Que.

SALT CAKE.—Sodium sulphate, made from common salt in the process of manufacturing sodium carbonate.

SALTPETRE.—Nitrate of potash, or nitre, occurs as an efflorescence from the soil in India and Persia, and in Prussia, Switzerland, and Sweden is obtained by mixing urine, dung, and animal offal with lime, debris from buildings, &c. Most saltpetre, however (except what is exported from India), is now made from nitrate of soda (see **NITRATE**), which is often called Chilian saltpetre. Nitre is employed in the manufacture of nitric and sulphuric acids, in medicine, and especially in the manufacture of gun-powder.

SAMSHU, a spirit made in China from rice, ideneical with the Japanese sake.

SANDALS.

Humberstone Shoe Co., Humberstone, Ont.

SANDERS, Endless Bed and Drum Type.

Berlin Machine Works, Ltd., Hamilton, Ont.
Canada Machinery Corporation, Ltd., Galt, Ont.
Cowan & Co., of Galt, Ltd., Galt, Ont.
Elliot, W. A., Toronto, Ont.
Jackson, Cochrane & Co., Berlin, Ont.

SANDERS, Locomotive and Street Car.

Coghlin, B. J., Co., Ltd., Montreal, Que.

SANDALWOOD, the wood of several species of the genus Santalum, which grows in India, and the Malay Archipelago. Sandalwood is compact and fine grained, and has a very agreeable perfume. It is used for carved goods and other ornamental articles, and is burned in Indian and Chinese temples. The most common is White Sandalwood, but the woods of other species growing in New Caledonia and Australia are now brought into the market. The sandalwood from Western Australia have little odour. From the chips a very valuable oil is manufactured in England and France for the preparation of perfumes. Red Sandalwood is a tree of a different order, of the East Indies and Philippines. The red heartwood colours cloth a pale pink, and forms the basis of some tooth-powders.

SANDARAC, a resin obtained from the bark of a conifer that grows in North Africa. It is exported chiefly from Mogador. It is used, like mastic, in the preparation of varnishes, and in powder is rubbed or erasures on writing-paper.

SANDERSWOOD, a red dyewood exported from Madras. It is another name for red sandalwood.

SANDSTONE SETS.

Fleming Quarries, Glen Williams, Ont.
Kirby, The T. Sidney, Co., Ltd., Ottawa, Ottawa, Ont.
Vancouver Granite Co., Ltd., Vancouver, B.C.

SANTONIN, a crystalline extract from the dried flowers of a plant which grows abundantly in Russia. Santonin is a powerful medicine for worms.

SAPPAN WOOD, the red wood of a native of India, which yields a dye largely used in calico printing.

SAPPHIRE.—Clear blue crystals of corundum. The finest stones come from Ceylon, and a few from Kashmir and Burma. Queensland, Australia, and Montana, U.S.A., also yield stones.

SAPUCAYA NUTS, a tree allied to the Brazil-nut, which grows in Guiana and Brazil, bears fine-flavoured nuts. In Brazil a much prized oil is expressed from them. Rope is made from the bast.

SARCOCOLLA, gum obtained from North Africa, Arabia, and Persia.

SARDINES.—The French name for small pilchards. They are preserved in tins, and an oil is expressed from them. Other small fish, sprats and young herrings for instance, are often tinned as sardines. **(See FISH).**

SARDINES, Canned.

Clark, J. Sutton, Ltd., St. George, N.B.
McDonald Packing Company, Fairhaven, N.B.

SARSAPARILLA.—The roots of several kinds of Smilax are exported from the West Indies, Central America, Peru, and Ecuador. In the British Pharmacopœia they are called Jamaica sarsaparilla. A decoction and extract are used in medicine.

SASH, Door and Window. (See Planing Mills)

SASH, Metal, Continuous, with Process Welded Joints.

Metal Shingle & Siding Co., Ltd., Preston, Ont.

SASH, Steel.

Hope, Henry, & Sons, Ltd., Toronto, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Ormsby, A. B., Co., Ltd., Toronto, Ont., and Winnipeg, Man.
Steel & Radiation, Ltd., Toronto, Ont.
Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.

SASH LIFTS.

Belleville Hardware & Lock Mfg. Co., Ltd., Belleville, Ont.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Peterborough Lock Mfg. Co., Ltd., Peterborough, Ont.

SASH LOCKS.

Belleville Hardware & Lock Mfg. Co., Ltd., Belleville, Ont.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
Hope, Henry, & Sons, Ltd., Toronto, Ont.
Mitchell, The Robt., Co., Ltd., Montreal, Que.
National Hardware Co., Ltd., Orillia, Ont.
Peterborough Lock Mfg. Co., Ltd., Peterborough, Ont.
Smart, The Jas., Mfg. Co., Ltd., Brockville, Ont.
Springer Lock Co., Ltd., Belleville, Ont.

SASH WEIGHTS Lead.

Corbet Foundry Co., The, Owen Sound, Ont.
Fittings, Ltd., Oshawa, Ont.
Smith Foundry Co., Ltd., The, Fredericton, N.B.
Tallman Brass & Metal Co., Hamilton, Ont.
Vancouver Pipe & Foundry Co., Ltd., Vancouver, B.C.

SASH and FRAMES, Hollow Sheet Metal.

Metal Shingle & Siding Co., Ltd., Preston, Ont.
Metallic Roofing Co. of Canada, Ltd., The, Toronto, Ont.
Ormsby, A. B. Co., Ltd., Toronto, Ont.
Pedlar People, Ltd., Toronto, Ont.

SASHES, Knitted.

Avon Hosiery, Ltd., Stratford, Ont.

SASSAFRAS, an American tree, of the order Lauraceæ, grows from Canada to Florida. The wood, but more particularly the root-bark, is used in medicine as a powerful stimulant, and also the volatile oil of sassafras. The last is employed in perfuming soap and to adulterate copaiva balsam. The wood is worked by turners.

SATCHELS. (See Bags, Travelling.)

SATIN, a silken fabric in which the threads of the weft pass under comparatively few threads of the warp, so that the surface has a glossy appearance. The number of warp threads that appear on the surface is sometimes only one in ten, sometimes as many as one in four, and then the fabric is sometimes called satinet. Cotton fabrics similarly woven are called sateens.

SATINWOOD.—There are two kinds of satinwood, of which one is obtained from India and Ceylon. The other, and more valuable, is derived from the Bahamas. Ships' cabins are often panelled with satinwood.

SAUCES and CATSUPS.

Blackwood's, Ltd., The, Winnipeg, Man.
Bourque, H. & Fils, Montreal, Que.
British Canadian Canners, Ltd., Hamilton, Ont.
Canada Preserving Co., Ltd., The, Hamilton, Ont.
Davies, The Wm., Co., Ltd., Toronto, Ont.
Dominion Canneries, Ltd., Hamilton, Ont.
Dyson Co., The, Winnipeg, Man.
Empress Mfg. Co., Ltd., Vancouver, B.C.
Essex Canning & Preserving Co., Ltd., Essex, Ont.
Francaise Societe de Specialtes Alimentaires, Montreal, Que.
Gorman, Eckert & Co., Ltd., London, Ont.
Heinz, H. J., Company, Leamington, Ont.
Labreque & Pellerin, Montreal, Que.
Leas', Ltd., The, Simcoe, Ont.
London Canning Co., The, London, Ont.
Lytle, The T. A., Co., Ltd., Toronto, Ont.
Mason's, Ltd., Toronto, Ont.
McCready, T., & Son, Ltd., St. John, N.B.
National Canners, Ltd., Hamilton, Ont.
Ontario Canners, Ltd., Sarnia, Ont.
Oshawa Canning Co. Ltd., The, Oshawa, Ont.
Quebec Preserving Company, Quebec, Que.
St. Louis Preserving Co., Ltd., The, Montreal.
Smith, E. D., & Son, Ltd., Winona, Ont.
Taylor, W. A., Winnipeg, Man.
Taylor & Pringle Co., Ltd., Owen Sound, Ont.
Upton, The T., Co., Ltd., Hamitlon, Ont.
White Star Mfg. Co., The, Winnipeg, Man.

SAUSAGES.—Sausages are manufactured in many towns in Germany, at Bologna and Trient, at Bayonne, Lyon and Arles, and in the United States and Canada. Salted, smoked, or mixed with spices they will keep good for some time, and the United States and other countries export sausage and sausage meat. Australia and America export large numbers of sausage skins.

SAUSAGES. (See Pork and Pork Products.)

SAUTERNES, excellent white wines produced in Sauternes and the neighbouring communes of the department of La Gironde, France.

SAVE-ALLS, Pump.

Sherbrooke Machinery Co., Ltd., Sherbrooke, Que.

SAVINE, or Savin, a low shrub, grows in the mountains of Central and South Europe, the Caucasus and North America. The tops yield a volatile oil used in medicine.

SAW ARBORS.

Atkins, E. C., & Co., Hamilton, Ont.
Gardner, Robt., & Son, Ltd., Montreal, Que.
Hamilton, Wm., & Co., Ltd., Peterborough, Ont.
International Engineering Works, Ltd., Montreal, Que.
Jackson, Cochrane & Co., Berlin, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Long, The E. Mfg. Co., Ltd., Orillia, Ont.
Muskoka Foundry Co., Bracebridge, Ont.
St. John Iron Works, Ltd., St. John, N.B.
Smart, The Jas., Mfg. Co., Ltd., Brockville, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont..
Starr Mfg. Co., Ltd., Dartmouth, N.S.
Turner, John, & Sons, Toronto, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

SAW BUCKS.

Granby Hardware Mfg. Co., Granby, Que.
Taylor, Scott & Co., Ltd., Palmerston, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

SAWDUST.—This refuse is turned to a multitude of purposes. In its original state it forms the stuffing of dolls and pin-cushions and a filtering material, and the dust of mahogany and rosewood is used in dressing furs. From the small fragments of aromatic woods perfumes are extracted. Fine sawdust of rosewood, ebony, and other choice woods is formed into a paste with blood and moulded into ornaments. In chemical works sawdust is used in the manufacture of soda ash, and is a source of oxalic acid.

SAW FRAMES.

Goold, Shapley & Muir Co., Ltd., Brantford, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

SAW FRAMES, Hack and Coping.

Canadian Quality Saw & Tool Works, Montreal.

SAW GAUGES.

Dillon, R., & Son, Oshawa, Ont.

SAW GUMMERS.

Canadian Hart Wheels, Ltd., Hamilton, Ont.
Jardine, A. B., & Co., Hespeler, Ont.
Letson & Burpee, Ltd., Vancouver, B.C.

SAW JOINTERS.

Dillon, R., & Sons, Oshawa, Ont.

SAW MACHINES, Hack.

Atkins, E. C., & Co., Hamilton, Ont.
Muskoka Foundry Co., Bracebridge, Ont.
Thetford Cie., Ltd., La Fonderie de, Thetford Mines, Que.

SAW MILL CARRIAGES.

Hamilton, Wm., & Co., Ltd., Peterborough, Ont.
Mowry & Sons, Gravenhurst, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

SAW MILLS, Portable.

Bell, The Robt., Engine & Thresher Co., Ltd., Seaforth, Ont.
Hamilton, Wm., & Co., Ltd., Peterborough, Ont.
McKeough & Trotter, Ltd., Chatham, Ont.
Oxford Foundry & Machine Co., Ltd., Oxford, N.S.
Pictou Foundry & Machine Co., The, Pictou, N.S.
Waterous Engine Works Co., Ltd., Brantford, Ont.
White, The George, & Sons, Co., Ltd., London, Ont.

SAW MILLS, Stationary.

Davidson, Jas., Ottawa, Ont.
Fenderson, John & Co., Inc., Sayabec, Que.
McKeough & Trotter, Ltd., Chatham, Ont.

SAW SETS.

Canada Axe & Harvest Tool Mfg. Co., Ltd., Montreal, Que.
Dillon, R., & Son, Oshawa, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.

SAW SHARPENERS.

Hamilton, Wm., & Co., Ltd., Peterborough, Ont.
McLennan Foundry & Machine Works, Ltd., Campbellton, N.B.
Mowry & Sons, Gravenhurst, Ont.
Prescott Emery Wheel Co., Ltd., Prescott, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

SAW SWAGES.

Atkins, E. C., & Co., Hamilton, Ont.
Waterous Engine Works Co., Ltd., Brantford, Ont.

SAW TOOLS.

Atkins, E. C., & Co., Hamilton, Ont.
Disston, Henry, & Sons, Ltd., Toronto, Ont.

SAW VISES.

Belleville Hardware & Lock Mfg. Co., Ltd., Belleville, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.

SAWING MACHINES, Band.

Waterous Engine Works Co., Ltd., Brantford, Ont.
Williams, A. R., Machinery Co., Ltd., Toronto.

SAWING MACHINES. Circular.

Beauceville, La Fonderie de, Beauceville, Que.
Berlin Machine Works, Ltd., Hamilton, Ont.
Cantin et Fils, La Cie., Warwick, Que.
Chalifoux, O., & Fils, St. Hyacinthe, Que.
Dore, J. B., & Fils, Montreal, Que.
Jackson, Cochrane & Co., Berlin, Ont.
Moody, The Matthew, & Sons Co., Terrebonne, Que.
National Mfg. Co., Ltd., Ottawa, Ont.
Sleeper & Akhurst, Coaticook, Que.
Starr Mfg. Co., Ltd., Dartmouth, N.S.
Victoriaville Foundry Co., Victoriaville, Que.
Waterous Engine Works Co., Ltd., Brantford, Ont.
Williams, A. R., Machinery Co., Ltd., Toronto.
Williams, A. R., Machinery Co., Ltd., Toronto.
Victoriaville Foundry Co., Victoriaville, Que.

SAWS, Band.

Atkins, E. C., & Co., Hamilton, Ont.
Berlin Machine Works, Ltd., Hamilton, Ont.
Bertrand, La Cie., F. X., Manufacturiere, Ltd., St. Hyacinthe, Que.
Burns, The E. R. Saw Co., Ltd., Toronto., Ont.
Burton, The A. J., Saw Co., Ltd., Vancouver, B.C.
Canada Machinery Corporation, Ltd., Galt, Ont.
Cowan & Co., of Galt, Ltd., Galt, Ont.
Disston, Henry, & Sons, Ltd., Toronto, Ont.
Elliot, W. A., Toronto, Ont.
Jackson, Cochrane & Co., Berlin, Ont.
Preston Woodworking Machinery Co., Ltd., Preston, Ont.

Radcliff Saw Mill Mfg. Co., Ltd., The, Toronto.
Shurly-Dietrich Co., Ltd., Galt, Ont.
Simonds-Canada Saw Co., Ltd., Montreal, Que.
Smith, R. H., Co., Ltd., St. Catharines, Ont.
Turner, John, & Sons, Toronto, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.
Wilson, Walter, & Son, St. John, N.B.

SAWS, Circular.

Atkins, E. C., & Co., Hamilton, Ont.
Bell, B., & Son Co., Ltd., St. George, Ont.
Bessette, La Cie., J. & Co., Ltd., Iberville, Que.
Burns, The E. R. Saw Co., Ltd., Toronto., Ont.
Burton, The A. J., Saw Co., Ltd., Vancouver, B.C.
Cowan & Co., of Galt, Ltd., Galt, Ont.
Disston, Henry, & Sons, Ltd., Toronto, Ont.
Manitoba Engines, Ltd., Brandon, Man.
Radcliff Saw Mill Mfg. Co., Ltd., The, Toronto.
Shurly-Dietrich Co., Ltd., Galt, Ont.
Simonds-Canada Saw Co., Ltd., Montreal, Que.
Smith, R. H., Co., Ltd., St. Catharines, Ont.
Wilson, Walter, & Son, St. John, N.B.

SAWS, Diamond.

Anderson, Geo. & Co. of Canada, Ltd., Montreal.

SAWS, Gang and Drag.

Atkins, E. C., & Co., Hamilton, Ont.
Bell, B., & Son Co., Ltd., St. George, Ont.
Burns, The E. R. Saw Co., Ltd., Toronto., Ont.
Burton, The A. J., Saw Co., Ltd., Vancouver, B.C.
Disston, Henry, & Sons, Ltd., Toronto, Ont.
Dore, J. B., & Fils, Montreal Que.
McLennan Foundry & Machine Works, Ltd., Campbellton, N.B.
Moody, The Matthew, & Sons Co., Terrebonne, Que.
Radcliff Saw Mfg. Co., Ltd., The, Toronto,
Simonds-Canada Saw Co., Ltd., Montreal, Que.
Sleeper & Akhurst, Coaticook, Que.
Wilson, Walter, & Son, St. John, N.B.

SAWS, Hack.

Atkins, E. C., & Co., Hamilton, Ont.
Bell, B., & Son Co., Ltd., St. George, Ont.
Canadian Quality Saw & Tool Works, Ltd., Montreal, Que.
Decbul Tools, Ltd., Montreal, Que.
Holden Co., Ltd., The, Montreal, Que.
Modern Machine & Electrical Works, Toronto.
Simonds-Canada Saw Co., Ltd., Móntreal, Que.
Turner, John, & Son, Toronto, Ont.

SAWS, Hand.

Atkins, E. C., & Co., Hamilton, Ont.
Canada Axe & Harvest Tool Mfg. Co., Ltd., Montreal, Que.
Gilson Mfg. Co., Ltd., Guelph, Ont.
Holden Co., Ltd., The, Montreal, Que.
Simonds-Canada Saw Co., Ltd., Montreal, Que.
Smith, R. H., Co., Ltd., St. Catharines, Ont.
Welland Vale Mfg. Co., Ltd., The, St. Catherines, Ont.
Wilson, Walter, & Son, St. John, N.B.

SAWS, Ice.

Atkins, E. C., & Co., Hamilton, Ont.

SAWS, Inserted Tooth.

Atkins, E. C., & Co., Hamilton, Ont.
Burton, The A. J., Saw Co., Ltd., Vancouver, B.C.
Wilson, Walter, & Son, St. John, N.B.

SAWS, Rip and Cross-Cut.

Atkins, E. C., & Co., Hamilton, Ont.
Berlin Marchine Works, Ltd., Hamilton, Ont.
Burns, The E. R. Saw Co., Ltd., Toronto., Ont.
Canada Axe & Harvest Tool Mfg. Co., Ltd., Montreal, Que.
Canada Machinery Corporation, Ltd., Galt, Ont.
Canadian Linderman Co., Ltd., Woodstock, Ont.
Cowan & Co., of Galt, Ltd., Galt, Ont.
Disston, Henry, & Sons, Ltd., Toronto, Ont.
Preston Woodworking Machinery Co., Ltd., Preston, Ont.
Shurly-Dietrich Co., Ltd., Galt, Ont.
Simonds-Canada Saw Co., Ltd., Montreal, Que.
Smith, R. H., Co., Ltd., St. Catharines, Ont.
Welland Vale Mfg. Co., Ltd., The, St. Catherines, Ont.
Wilson, Walter, & Son, St. John, N.B.

SCALEBOARD.—A veneer or thin sheet of wood.

SCALES.

Allaster, W., Montreal, Que.
Aylmer Pump & Scale Co., Ltd., Aylmer, Ont.
Burrow, Stewart & Milne Co., Ltd., The, Hamilton, Ont.
Canadian Allis Chalmers, Ltd., Toronto, Ont.
Canadian Fairbanks-Morse Co., Ltd., Montreal.
Cleal, Jos. P., Toronto, Ont.
Computing Scale Co. of Canada, Ltd., Toronto, Ont.
Fairbanks, E. & T. & Co., Ltd., Sherbrooke, Que.
Gray-Sons-Campbell, The Wm., Ld., Chatham, Ont.
Gurney Scale Co., Hamilton, Ont.
National Mfg. Co., Ltd., Ottawa, Ont.
New Warren Scale Co., Montreal, Que.
Pritchard-Andrews Co. ,of Ottawa, Ltd., Ottawa, Ont.
Renfrew Scale Co., Renfrew, Ont.
Richardson Scale Co., Lethbridge, Alta.
Sherbrooke Scale Co., Sherbrooke, Que.
Tilden, Gurney & Co., Ltd., Winnipeg, Man.
Toledo Scale Company, Windsor, Ont.
Wilson, C., & Son, Toronto, Ont.

SCALES, Automatic.

Toledo Scale Company, Windsor, Ont.

SCALES, Boxwood, Flat and Triangular.

Dietzgen, Eugene, Co., of Ontario, Ltd., Toronto.

SCALES, Elevator and Track.

Canadian Fairbanks-Morse Co., Ltd., Montreal.
Gurney Scale Co., Hamilton, Ont.
Toledo Scale Company, Windsor, Ont.
Wilson, C., & Son, Toronto, Ont.

SCALES, Farm.

Aylmer Pump & Scale Co., Ltd., Aylmer, Ont.
Burrow, Stewart & Milne Co., Ltd., The, Hamilton, Ont.
Canadian Fairbanks-Morse Co., Ltd., Montreal.
Gurney Scale Co., Hamilton, Ont.
Wilson, C., & Son, Toronto, Ont.

SCALES, Machinists'.

Lufkin Rule Co. of Canada, Ltd., The, Windsor, Ont.
Wilson, C., & Son, Toronto, Ont.

SCALES, Small, Portable and Counter.

Fletcher Mfg. Co., Ltd., Toronto, Ont.
Gurney Scale Co., Hamilton, Ont.
Renfrew Scale Co., Renfrew, Ont.
Toledo Scale Company, Windsor, Ont.
Wilson, C., & Son, Toronto, Ont.

SCALES, Warehouse.

Renfrew Scale Co., Renfrew, Ont.
Toledo Scale Company, Windsor, Ont.

SCALLOPS.—Various species of Pecten, a well-known mollusc, are eaten, especially in America. Some of the larger kinds are frequently called clams.

SCAMMONY, a gum resin of a grey colour obtained from roots which grows in the Levant, particularly in the neighbourhood of Smyrna an Aleppo. When pure it is an excellent cathartic medicine.

SCARFS, Knitted.

Best Knit, Ltd., Brampton, Ont.
Crochet & Knitting Specialty Co., The, Toronto.
Dominion Cord & Tassel Co., Montreal.
Gillies, A. J., Mfg. Co., Toronto, Ont.
Neckwear & Fancy oGods Co., Ltd., St .John, N.B.

SCARLET RUNNERS. (See BEANS).

SCHOOL SUPPLIES.

Globe Furniture Co., Ltd., The, Waterloo, Ont.
Hendry, The Geo. M., Co., Ltd., Toronto, Ont.

SCOOPS, Grain.

Jones, D. F., Mfg. Co., of Gananoque, Ltd., Gananoque, Ont.
Lundy Shovel & Tool Co., Ltd., Peterborough, Ont.
Markwell Mfg. Co., Ltd., Winnipeg, Man.
Sheet Metal Products Co. of Canada, Ltd., Winnipeg, Man.
Steel Equipment Co., Ltd., Ottawa, Ont.

SCOOPS, Grocers', Bakers', Etc.

Ben Hur Mfg. Co., Ltd., Hamilton, Ont.
Fletcher Mfg. Co., Ltd., Toronto, Ont.

SCOOPS, Steel, Coal.

Canadian Shovel & Tool Co. Ltd., The, Hamilton, Ont.
Jones, D. F., Mfg. Co., of Gananoque, Ltd., Gananoque, Ont.
Lundy Shovel & Tool Co., Ltd., Peterborough, Ont.
Wolfe, Geo., & Sons, Ltd., Montreal, Que.

SCOURED WOOL. (See WOOL).

SCOWS. Steel, Dump and Deck.

Beatty, M. & Sons, Ltd., Welland, Ont.
Collingwood Shipbuilding Co., Ltd., Collingwood, Ont.
Kingston Shipbuilding Co., Ltd., Kingston, Ont.
Structural Steel Co., Ltd., Montreal, Que.

SCRAPERS, Grading and Excavating.

Bateman-Wilkinson Co., Ltd., Toronto, Ont.
Bechtels, Ltd., Waterloo, Ont.
Belanger, A., Montmagny Que.
London Concrete Machinery Co., Ltd., London, Ont.
Meaford Wheelbarrow Co., Ltd., Meaford, Ont.
Mussens, Limited, Montreal, Que.

SCRAPERS or CLEANERS, Street.

American Road Machine Co. of Canada, Ltd., Goderich, Ont.

SCRAPERS, Sidewalk, Stable and Foot.

Bell, B., & Son Co., Ltd., St. George, Ont.
Canada Steel Goods Co., Ltd., Hamilton, Ont.
Decbul Tools, Ltd., Montreal, Que.
Richards-Wilcox Canadian Co., Ltd., London, Ont.

SCRAPERS, Wheel.

Bateman-Wilkinson Co., Ltd., Toronto, Ont.
Meaford Wheelbarrow Co., Ltd., Meaford, Ont.

SCRAP IRON.—Old or waste iron material sold to be remelted.

SCREEEN PLATES, Brass and Bronze.

Union Screen Plate Co. of Canada, Ltd., Lennoxville, Que.

SCREENS,, Art.

Globe Furniture Co., Ltd., The, Waterloo, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.

SCREENS, Mining.

..**Brown Machine Co., Ltd., New Glasgow, N.S.**..
Canada Wire & Iron Goods Co., Hamilton, Ont.
Greening, The B., Wire Co., Ltd., Hamilton.
Jeffrey Mfg. Co., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Meadows, Geo. B., Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.

SCREENS, Pulp and Stamp.

Canada Wire & Iron Goods Co., Hamilton, Ont.
Canadian Pulp Mill Machinery Co., Ltd., Montreal, Que.
Greening, The B., Wire Co., Ltd., Hamilton.
Jenckes Machine Co., Ltd., Sherbrooke, Que.

SCREENS, Revolving.

American Road Machine Co. of Canada, Ltd., Goderich, Ont.
Canada Wire & Iron Goods Co., Hamilton, Ont.
Greening, The B., Wire Co., Ltd., Hamilton.
Jeffrey Mfg. Co., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Sherbrooke Machinery Co., Ltd., Sherbrooke, Que.
Waterous Engine Works Co., Ltd., Brantford, Ont.

SCREEENS, Window and Door.

Anderson Mfg. Co., The, Winnipeg, Man.
Cushing Bros. Co., Ltd., Calgary, Alta.
Gignac, J. H., Ltd., Quebec, Que.
Ham & Nott Co., Ltd., The, Brantford, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Rathbun Company, The, Deseronto, Ont.
Rhodes, Curry Co., Ltd., Amherst, N.S.
Sanderson & Harold Co., Ltd., Paris, Ont.
Steel & Radiation, Ltd., Toronto, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.
Tobin Mfg. Company, Bromptonville, Ont.
Watson-Smith Co., Ltd., The, Toronto, Ont.
Westport Woodworking Co., Ltd., Westport, Ont.

SCREENS, Wire (Contractors' Sand and Gravel.)

Brantford Oven & Rack Co., Ltd., Brantford, Ont.
Canada Wire & Iron Goods Co., Hamilton, Ont.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Greening, The B., Wire Co., Ltd., Hamilton.
Johnson, C. H., & Sons, Ltd., Montreal, Que.
Structural Steel Co., Ltd., Montreal, Que.

SCREW.—Wood screws are cut by machinery out of mild steel and iron, brass, copper, and zinc. They are made in large quantities in Birmingham, and are exported.

SCREW DRIVERS.

Canadian Billings & Spencer, Ltd. Welland, Ont.
Cowan & Britton, Ltd., Gananoque, Ont.
Decbul Tools, Ltd., Montreal, Que.
Gilmour Bros. & Co., Montreal, Que.

SCREW HOOKS and EYES.

Steel Co. of Canada, Ltd., Hamilton, Ont., and and Montreal, Que.

SCREWS, Bench.

Taylor-Forbes Co., Ltd., Guelph, Ont.

SCREWS, Boat Raising.

Smart, The Jas., Mfg. Co., Ltd., Brockville, Ont.

SCREWS, Lag and Coach.

Starr Mfg. Co., Ltd., Dartmouth, N.S.
Steel Co. of Canada, Ltd., Montreal, Que., and Toronto, Ont.

SCREWS, Machine Cap and Special.

Canada Tool & Specialty Co., Ltd., New Glasgow, N.S.
Canadian-Allis Chalmers, Ltd., Toronto, Ont.
National Acme Mfg. Co., Montreal, Que.
Starr Mfg. Co., Ltd., Dartmouth, N.S.
Steel Co. of Canada, Ltd., Hamilton, Ont., and and Montreal, Que.

SCREWS, Set and Milled.

Allen Mfg. Co., Inc., The, Montreal, Que.
Canada Tool & Specialty Co., Ltd., New Glasgow, N.S.
Canadian-Allis Chalmers, Ltd., Toronto, Ont.
National Acme Mfg. Co., Ltd., Montreal, Que.
Starr Mfg. Co., Ltd., Dartmouth, N.S.

SCREWS, Thumb.

Canadian-Allis Chalmers, Ltd., Toronto, Ont.
Canadian Billings & Spencer, Ltd., Welland, Ont.
National Machinery Supply Co., Ltd., Hamilton. Ont.

SCREWS, Wood.

Martin Nail Co., Ltd., St. John, N.B.
Northern Bolt & Screw Co., Ltd., Owen Sound, Ont.
Smart, The Jas., Mfg. Co., Ltd., Brockville, Ont.
Steel Co. of Canada, Ltd., Hamilton, Ont., Montreal, Que., and Toronto, Ont.

SCRIVELLOES. (See IVORY).

SCUFFLERS. (See also Field Cultivators.)

Bruce Agricultural Works, The, Teeswater, Ont.
Cossit Co., Ltd., The, Brockville, Ont.
Fleury's, J., Sons, Aurora, Ont.
Frost & Wood Co., Ltd., The, Smith's Falls, Ont.
Hamilton, Peter, Co., Ltd., Peterborough, Ont.
Hantsport Fruit Basket Co., Hantsport, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Maxwell, David, & Sons, St. Mary's, Ont.
Noxon Co., Ltd., The, Ingersoll, Ont.
Verity Plow Co., Ltd., Brantford, Ont.

SCYTHES.

Bedford Mfg. Co., The, Bedford, Que.
Canada Axe & Harvest Tool Mfg. Co., Ltd., Montreal, Que.
Welland Vale Mfg. Co., Ltd., The, St. Catharines, Ont.

SEAL.—Seals are divided into two families, the Phocidæ, which have no external ears, and the Otariidæ, in which there are distinct, though small, outer appendages. Of the Phocidæ, the common seal which occurs in Greenland, on the Arctic shores of North America and in the North Pacific, the Harp Seal, abundant in Newfoundland and Greenland, are most hunted for their oil and skin, the coat being however of a hairy texture and therefore much less valuable than that of the fur seals. Other kinds are much sought after by Eskimos and Greenlanders, and the seals of the Caspian Sea and Lake Baikal are hunted by the natives. The sea-elephant of the Antarctic is hunted for its blubber and skin, and another species occurs in the North Pacific, but is now scarce. To the sea-lions, of the Otariidæ family, belong the Otaria Stelleri of the northern hemisphere, and the Otaria jubata of the southern. A large quantity of hair is mingled with the fur of the southern seal, which, however, can be removed. The numbers have diminishel very rapidly. In the northern hemisphere fur seals are taken at the Pribylof Islands, the Commander Islands, and Robben Island, and in the open sea. In the southern hemisphere the most abundant supply is obtained from Lobos Island, at the mouth of the Rio de la Plata. About 15,000 to 20,000 skins are taken annually off South America. London is the great market for the skins. For other seals the most important fishing ground lies to the east of Newfoundland and Labrador.

SEALS, Corporation, Notarial, Society and Wax.

Armstrong, W. D., Montreal, Que.
Hamilton Stamp & Stencil Works, Ltd., Hamilton, Ont.
Montreal Stencil Works, Montreal, Que.
Reliance Ink Co., Ltd., Winnipeg, Man.
Superior Mfg. Co., Ltd., Toronto, Ont.
Toronto Stamp & Stencil Works, Ltd., Toronto.
Walker & Campbell, Montreal, Que.

SEALING-WAX.—The best kind is made of 5 to 6 parts of shellac, and 3 to 4 each of Venice turpentine and vermilion, to which is frequently added some magnesia, chalk, or gypsum. In commoner kinds there is less shellac and vermilion. Bottle wax is composed principally of resin, turpentine, and chalk.

SEA MORSE TEETH. (See WALRUS).

SEARCHLIGHTS.

Piper, The Hiram L., Co., Ltd., Montreal, Que.

SEASIDE GRAPE, a small tree that grows in the West Indies and South America. The wood is heavy, beautifully veined, and takes a good polish. An extract from it is extremely astringent, and is sometimes called Jamaica Kino.

SEATING, Church, School, Opera and Assembly Hall.

Berlin Interior Hardwood Co., Ltd., Berlin, Ont.
Canadian Office & School Furniture Co., Ltd., The, Preston, Ont.
Globe Furniture Co., Ltd., The, Waterloo, Ont.
Hanbury Mfg. Co., Ltd., Brandon, Man.
Krug Bros. Co., Ltd., Chesley, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Rhodes, Curry Co., Ltd., Amherst, N.S.
Thompson Kanuck Kitchen Kabinet Co., Ltd., Belleville, Ont.
Valley City Seating Co., Ltd., The, Dundas, Ont.
Vilas, W. F., Cowansville, Que.
Woodcrafts, Ltd., Calgary, Alta.

SEATS, Carriage.

Auto Top & Body Co., Ltd., The, Toronto, Ont.
Conboy Carriage Co., Ltd., The, Toronto, Ont.
Guelph Carriage Top Co., Guelph, Ont.

SEATS, Closet.

Beach, The M. F., Co., Ltd., Winchester, Ont.
B. O. T. Mfg. Co, Ltd., The, Toronto, Ont.
Goderich Organ Co., Ltd., Goderich, Ont.
Hourd & Co., Ltd., London, Ont.
Smart, The Jas. Mfg. Co., Ltd., Brockville, Ont.
Windsor Furniture Co., Ltd., Windsor, N.S.

SEATS, Hall.

Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Lippert Furniture Co., Ltd., Berlin, Ont.
Markdale Furniture Co., Ltd., Markdale, Ont.
North American Furniture Co., Ltd., Owen Sound, Ont.

SEATS, Lawn and Park.

Berlin Woodenware Co., Berlin, Ont.
Royal Chair Co., Quebec, Que.
Shantz, P. E., Preston, Ont.
Smart, The Jas. Mfg. Co., Ltd., Brockville, Ont.
Stratford Mfg. Co., Ltd., Stratford, Ont.
Taylor, Scott & Co., Ltd., Palmerston, Ont.
Vilas, W. F., Cowansville, Que.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.

SEA-WEEDS.—For the utilisation of sea-weeds in industry, **(See AGAR-AGAR, BARILLA, KELP, and IODINE).**

SECONDS, an inferior quality of flour sometimes called "shorts."

SECRETARIES.

Beach Furniture Co., The, Cornwall, Ont.
Berlin Furniture Co., Ltd., Berlin, Ont.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Dominion Furniture Mfg. Co., Ltd., Ste. Therese, Que.
Hespeler Furniture Co., Ltd., Hespeler, Ont.
Hibner Furniture Co., Ltd., Berlin, Ont.
Kilgour, J. W., & Bro., Ltd., Beauharnois, Que.
Kreiner, J., & Co., Berlin, Ont.
Krug Bros. Co., Ltd., Chesley, Ont.
Krug, The H., Furniture Co., Ltd., Berlin, Ont.
Labbe, Geo. H., & Co., Montreal, Que.
Malcolm & Souter Furniture Co., Ltd., Hamilton, Ont.
Meaford Mfg. Co., Ltd., Meaford, Ont.
Spiesz Furniture, Ltd., The, Hanover, Ont.
Toronto Furniture Co., Ltd., Toronto, Ont.

SEED DRILLS.. See also Single Disc Drills, and Double Disc Drills.

Bruce Agricultural Works, The, Teeswater, Ont
Cockshutt Plow Co., Ltd., Brantford, Ont.
Dore, J. B. & Fils, Montreal, Que.
Frost & Wood Co., Ltd., The, Smith's Falls, Ont
International Harvester Co. of Canada, Ltd., Hamilton, Ont.
Maxwell, David, & Sons, St. Mary's, Ont.
Moody, The Matthew, & Sons Co., Terrebonne, Que.
Noxon Co., Ltd., The, Ingersoll, Ont.
Verity Plow Co., Ltd., Brantford, Ont.

SEED DRILLS, Root, with or without Fertilizer Attachment.

Bell, B., & Son Co., Ltd., St. George, Ont.
Labelle, H. P., & Cie., Ltd., Montreal, Que.

SEED-LAC. (See LAC).

SEEDS.—The grains of many plants are articles of commerce either for the extraction of oil, as flavouring agents, or as fgood for cattle, birds, &c. The chief of these are linseed, cotton-seed, hemp-seed, canary-seed, grains of Paradise, ajowan seeds, aniseed, fennel-seed, sunflower seed, &c., all which are entered separately. Large quantities of the expressed oils are also dealt with in international commerce.

SEIDLITZ POWDERS.—These powders derive their name from a village in Northern Bohemia, where there is a spring of water containing similar ingredients. They usually contain 120 grains of tartrate of soda and potash, and 40 grains of bicarbonate of soda in one paper, and 38 grains of tartaric acid in another. When the contents of the two papers are mixed together in water carbonic acid is liberated, causing effervescence.

SELENITE, a transparent gypsum. Fine crystals are found at Bex, in Switzerland, in Sicily, Nova Scotia, and New Brunswick. Thin plates are used in polarizing apparatus. Selenite also makes the finest plaster of Paris, being a very pure form of gypsum.

SELENIUM, a rare element occurring sometimes in a vitreous form. It is a non-conductor of electricity, but its resistance is less in the light than in the dark, and this property is utilised in the photophone. It can be employed in the colouring of glass, but its great rarity and consequent high price are a check to its use.

SELTZER WATER. (See MINERAL WATERS).

SEMENCINE, or Semen-contra. Dried flowers of Artemisia exported from Aleppo, Alexandria, and North Africa. **(See SANTONIN).**

SEMOLINA.—Granules of the floury part of wheat. Italy exports large quantities, and France manufactures semolina of a superior quality, made from hard wheat. The name is also given to the larger grains produced in the process of milling, cleaned and sold, instead of being ground into flour. Semolina is used in soups and puddings.

SENEGA ROOT.—The roots of a bush which are exported from North America. The bush is also very abundant at the Cape. A medicine is extracted from them.

SENEGAL GUM.—Gum arabic from the Senegal River.

SENNA.—The dried leaflets of several species of Cassia. A confection, infusion, syrup, and tincture are used in medicine, and senna is an important ingredient in "black draught."

SEPARATORS, Grain. (See Machines. Threshing.)

SEPARATORS, Oil and Steam.

Babcock & Wilcox, Ltd., Montreal, Que.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Darling Bros., Ltd., Montreal, Que.
International Egineering Works, Ltd., Montreal
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

SEPIA, a brown pigment prepared from the colouring matter in the ink bag of the cuttle-fish, caught chiefly in the Adriatic and Mediterranean. It forms a good water-colour.

SERGES. See Cloth, Serge.

SERPENTRY ROOT.—The Virginian snake root. It possesses stimulant and tonic properties.

SERPENTINE, a stone which in its purest form is a magnesium silicate. Noble serpentine has a rich dark-green colour and receives a good polish. Vases and boxes, &c., are made of it. It is found in several parts of Germany, at Epinal in France, in Banffshire, the Shetland Islands, and Cornwall, but fine pieces are rare.

SERPOLET OIL.—The oil from Thymus serpyllum. (See **THYMOL**).

SESAME.—The seeds of Sesamum Indicum and other species, which are cultivated throughout the East and in all tropical lands. Gingelly oil extracted from them is used, like olive oil, in cookery and also as an illuminant and lubricant. Sesame, called also gingelly and til-seed, is exported from India to Europe to the value of about $70,000,000 annually.

SETTEES.

Coombe, The F. E., Furniture Co., Ltd., Kincardine, Ont.
Imperial Furniture Co., Toronto, Ont.
Krug Bros. Co., Ltd., Chesley, Ont.
Krug, The H., Furniture Co., Ltd., Berlin, Ont.
Mundell, John C., & Co., Elora, Ont.
Shantz, P. E., Preston, Ont.
Taylor, Scott and Co., Ltd., Palmerston, Ont.
Valley City Seating Co., Ltd., The, Dundas, Ont.
Westminster Iron Works, New Westminster, B.C.

SETTERS, Tire and Cold Tire.

House, Julius F., Toronto, Ont.
National Machine Company, Brighton, Ont.
Smart-Turner Machine Co., Ltd., The, Hamilton, Ont.

SEVILLE ORANGE. (See **ORANGE**).

SEWING-MACHINES.—Machines to a considerable value are exported from the United States and Great Britain. The Singer Manufacturing Company has factories at Elizabethport, New Jersey, at Kilbowie, near Glasgow, at Vienna, and St. Johns, Que.

SEWING MACHINES. (See Machines, Sewing.)

SHABRACK, a large saddle-cloth for cavalry horses, made of sheepskins with short curly wool.

SHACKLES, Chain.

Canadian Warren Axe & Tool Co., Ltd., St. Catharines, Ont.
Coghlin, B. J., Co., Ltd., Montreal, Que.

SHAD.—Shads are large fishes of the herring family. The common shad and the Twaite shad abound in European waters and ascend the rivers. Several species are found in America.

SHADDOCK, a member of the orange family, which is a native of the East and is now grown in the West Indies and Florida, and in Southern Europe. A finer and smaller variety is called pomelo or pompelmoose, or grape-fruit.

SHADES, Lamp (Glass.)

Edmunds, J. H., & Co., Toronto, Ont.
Hobbs Mfg. Co., Ltd., The, London, Ont.

SHADES, Window. (See also Blinds, Window Roller.)

Hayhoe, H. E., & Co., Toronto, Ont.
Hees, Geo. H., Son & Co., Ltd., Toronto, Ont.
Holman & Co., St. John, N.B.
Martel, Stewart, Western, Ltd. The, Winnipeg.
Soper, The Fred G. Co., Toronto, Ont.
Western King Mfg. Co., Ltd., Winnipeg, Man.

SHAFTING.

Barber, Chas. & Sons, Meaford, Ont.
Bell, The Robt., Engine & Thresher Co., Ltd., Seaforth, Ont.
Bruce Agricultural Works, The, Teeswater, Ont.
Canada Forge Co., Ltd., Welland, Ont.
Corbet Foundry Co., The, Owen Sound, Ont.
Dodge Mfg. Co., Ltd., Toronto, Ont.
Fleck, Alexander, Ltd., Ottawa, Ont.
Gardner, Robt., & Son, Ltd., Montreal, Que.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Inglis, The John Co., Ltd., Toronto, Ont.
International Engineering Works, Ltd., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Long, The E. Mfg. Co., Ltd., Orillia, Ont.
Mowry & Sons, Gravenhurst, Ont.
Oxford Foundry & Machine Co., Ltd., Oxford, N.S.
Payette, The P., Co., Penetanguishene, Ont.
Plessisville Foundry Co., Ltd., The, Plessisville, Que.
Stalford Mill Building Co., Ltd., The, Stratford, Ont.
Turner, John & Son, Toronto, Ont.
Union Drawn Steel Co., Ltd., Hamilton, Ont.
Waterous Engine Works Co., Ltd., Brantford,
Wilson, J. C., & Co., Glenora, Ont.

SHAFTING, Cold Drawn, Rolled and Turned.

Canadian Drawn Steel Co., Ltd., The, Hamilton, Ont.
Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.

SHAFTS, Carriage and Wagon.

Ackland, D., & Son, Ltd., Winnipeg, Man.
Canada Wheel Works Ltd., Merritton, Ont.
Finlay, J., & Sons Company, Norwood, Ont.
Heard, John, & Co., St. Thomas, Ont.
Hore, F. W., & Son Ltd., Hamilton, Ont.
Windsor Turned Goods Co., Ltd., Windsor, Ont.

SHAFTS, Carriage, Cutter and Wagon (Ironed.)

Victoria Wheel Works, Galt, Ont.
Windsor Turned Goods Co., Ltd., Windsor, Ont.

SHAGREEN.—The skins of rays, sharks, and other similar fishes. Being covered with grains of dentine they are used for smoothing wood. They also make durable leather, called in France galuchat, and are used to cover caskets, small boxes, and instrument cases. Real shagreen, however, is dear, and the pieces are of small size. Imitation shagreen is manufactured from ox skin by pressing into it seeds of a Chenopodium so as to give it a pitted surface.

SHALE OIL, a petroleum distilled from shale. The Scottish shale oil industry is important, and shale is worked in New South Wales and New Zealand. (See **PETROLEUM**).

SHAPERS, Iron-working.

Canada Machinery Corporation, Ltd., Galt, Ont.
McDougall, R., Co., Ltd., Galt, Ont.

SHAPERS, Woodworking.

Canada Machinery Corporation, Ltd., Galt, Ont.
Cowan & Co. of Galt, Ltd., Galt, Ont.
Preston Woodworking Machinery Co., Ltd., Preston, Ont.

SHARK.—Sharks are valuable for their skins and livers. Formerly the skins were used as shagreen to polish wood, and a considerable quantity of oil is obtained from their livers. The species chiefly used for this purpose are the ground shark which inhabits northern waters southwards to France, Massachusetts, and Oregon; the basking shark, taken in the north of Europe and on the coasts of California, Peru, and Australia; the oil-shark of the Pacific coast of North America; and the dog-fish. Skates, rays, and saw-fish also yield oil. Shark oil is very good for illuminating purposes, and is used in tanneries and in steel tempering. As a strengthening medicine, it is said to be quite equal to cod-liver oil. Sharks and dog-fish are utilised to a small extent as food, and the fins are imported into China, where gelatine is made from them.

SHARPENERS, Saw. (See Saw Sharpeners)

SHAVINGS, Baled.

Fenderson, John, & Co., Inc., Sayabec, Que.
Rutherford, The Wm., & Sons Co., Ltd., Montreal, Que.

SHAWLS.—The finest shawls are made in Cashmere from the pash or under wool of the Cashmere oat (**See CASHMERE**), one of first-rate quality being worth $1,500. Inferior shawls are manufactured in the Punjab, and Rampur shawls are well known. In Kerman, Persia, shawls are woven of the wool of the Angora goat (**See MOHAIR**), but these are not equal in quality to those of Cashmere. These industries have seriously declined now that shawls have gone out of fashion. Shawls are still manufactured in Europe to a certain extent at Rheims and Chantilly, in Picardy, and in Austria, being still worn in Brittany and the Mediterranean, and plaids are made in Scotland, in Belgium, and at Rheims.

SHAWLS, Worsted.

Crochet & Knitting Specialty Co., Toronto, Ont.
Mill Company, Coaticook, Que.
Oxford Worsted Co., Ltd., Amherst, N.S.

SHEA BUTTER, the solid fat obtained from the seeds of Butyrospermum Parkii, eaten as butter on the west coast of Africa, and exported for soap-making.

SHEAF LOADERS.

Stewart Sheaf Loader Co., Ltd., Winnipeg, Man.

SHEARS AND SHEAR BLADES.

Atkins, E. C., & Co., Hamilton, Ont.
Banfield, W. H., & Sons, Toronto, Ont.
Canada Forge Co., Ltd., Welland, Ont.
Canadian Buffalo Forge Co., Ltd., Montreal, Que.
Hamilton Gear & Machine Co., Toronto, Ont.
Hay, The Peter, Knife Co., Ltd., Galt, Ont.
Jardine, A. B., & Co., Hespeler, Ont.

SHEATHING, Building.

Bird, F. W., & Son, Hamilton, Ont.
Brantford Roofing Co., Ltd., Brantford, Ont.
Carritte, de B., St. John, N.B.
Crabtree, Edwin, & Sons, Ltd., Crabtree Mills, Que.
Dryden Timber & Power Co., Ltd., Dryden, Ont.
Eastern Paper Co., Ltd., St. Basile, Portneuf, Que.
Eddy, The E. C. Co., Ltd., Hull, Que.
Ford, Rowland & Son, Portneuf Station, Que.
McArthur, Alex. & Co., Ltd., Montreal, Que.
McComb, J. H., Ltd., Montreal, Que.
McLeod Pulp Co., Ltd., Liverpool, N.S.
Metis Lumber Co., The, Price, Que.
Montreal Paper Co., Ltd., Portneuf Station, Que
Moirs, Ltd., Halifax, N.S.
Northumberland Paper & Electric Co., Ltd., Campbellford, Ont.
Paterson Mfg. Co., Ltd., The, Montreal, Que., and Toronto, Ont.
Snowball, The J. B., Co., Ltd., Chatham, N.B.
Spencer Bros. & Turner, Ltd., Truro, N.S.
Standard Paint Co. of Canada, Ltd., Montreal.
Western Paper Mills, Ltd., Vancouver. B.C.

SHEAVES, Iron and Brass.

Crescent Machine Co., Ltd., The, Montreal, Que.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Miller Bros. & Sons, Ltd., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

SHEEP.—Sheep are kept either for their flesh or for their wool. Black-faced sheep an Cheviots are hardy breeds, South Downs and Cotswolds produce the best mutton, and Lincolns are one of the best long-wooled sheep. The finest of all wools is that of the merino sheep, originally a Spanish breed, but now widely distributed in Australia, North America, and Argentina. New Zealand, where the meat is an important product, rears Lincolns, Leicesters, and Cotswolds. The Astrakhan or Bokharian sheep is well known for its curly wool. The total number of sheep throughout the world is more than 400 millions, Australasia, Argentina, and Russia in Europe containing the largest number. North America and Argentina export large numbers of live sheep and frozen meat and wool, New Zealand frozen meat, especially Canterbury lamb, and also a large quantity of wool, and Australia is chiefly famous for the latter article. Sheep-skins are exported from South Africa, Australia, Argentina, &c.

The production of mutton in Canada is not sufficient to meet domestic requirements, but in spite of this fact a comparatively large proportion is exported to the United States market annually because of the excellent quality of mutton produced and the nearness of that market. In 1910, when the number of sheep in the Dominion totalled 2,174,300, the number of sheep exported totalled 111,107, valued at $607,740, and the exports of mutton amounted to 70,232 lbs., valued at $7,804.

SHEEP-DIP.

British Columbia Refining Co., Ltd., Vancouver, B.C.
Parker-Whyte Ltd., Winnipeg, Man.

SHEEPSKIN. (See Leather, Sheepskin.)

SHEEPSKINS, Pickled.

Kimble, John, & Son, Ltd., St. John, N.B.
Labreque, Francis, Quebec, Que.
Leadley, E. & Co., Toronto, Ont.

SHEET GLASS. (See GLASS).

SHEETINGS, bleached or unbleached linen cloth for sheets. Cotton is warmer, and cotton sheetings are now extensively manufactured.

SHEETS. (See **TARPAULIN**).

SHEET IRON GOODS.

Aubry, A., & Fils, Montreal, Que.
Davidson, The Thos., Mfg. Co., Ltd., Montreal.
McClary Mfg. Co., London, Ont.
Piper, The Hiram L., Co., Ltd., Montreal.
Prowse, Geo. R., Range Co., Ltd., Montreal.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont., and Winnipeg, Man.
Windsor Boiler Works, Windsor, Ont.

SHEET IRON WORK, Galvanized.

Andrews Wire Works of Canada, Ltd., Watford, Ont.
Gosselin, J. A., La Compagnie, Drummondville, Que.
Sheldon's, Ltd., Galt, Ont.

SHEET METAL BUILDING MATERIAL.

Campbell & Grill, Vancouver, B.C.
Canadian Metal Shingle Co., Winnipeg, Man.
Capital Sheet Metal Works, Edmonton, Alta.
Donohue, Jas., Halifax, N.S.
Galt Art Metal Co., Ltd., The, Galt, Ont.
McFarlane-Douglas Co., Ltd., Ottawa, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Metallic Roofing Co. of Canada, Ltd., Toronto.
Pedlar People, Ltd., Oshawa, Ont.
Sheet Metal Mfg. Co., Ltd., Calgary, Alta.
Steel Furnishing Co., The, New Glasgow, N.S.
Tracey, John R., Vancouver, B.C.
Winnipeg Steel Granary & Culvert Co., Ltd., Winnipeg, Man.
Wright, J. T., Winnipeg, Man.
Wright, J. W., Winnipeg, Man.

SHEET STEEL. (See Steel, Sheet.)

SHEETING, Flannel and Woollen.

Canadian Cottons, Ltd., Montreal, Que.
Dontigny, Philip, Arnprior, Ont.
Randle, James, Meaford, Ont.
Reiner Bros. & Co., Ltd., Wellesley, Ont.
Watchorn & Co., Ltd., Merrickville, Ont.

SHEETING, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Gutta Percha & Rubber, Ltd., Toronto, Ont.
Walpole Rubber Co., Ltd., Montreal, Que.

SHEETING, Wood. (See Planing Mills.)

SHELLAC. (See **LAC**).

SHELLAC.

Berry Brothers, Walkerville, Ont.
Brandram-Henderson, Ltd., Halifax, N.S.
British America Paint Co., The, Victoria, B.C.
Canada Paint Co., Ltd., The, Montreal, Que. and Winnipeg, Man.
Domestic Specialty Co., Ltd., Hamilton, Ont.
Dougall Varnish Co., Ltd., The, Montreal.
Holland Varnish Co., Ltd., Montreal, Que.
Imperial Varnish & Color Co., Ltd., Toronto.
Langmuir, James & Co., Ltd., Toronto, Ont.
Marx & Rawolle of Canada, Ltd., Montreal, Que.
Moore, Benjamin, & Co., Ltd., Toronto, Ont.
Muirhead, A. Co., Ltd., Toronto, Ont.
Ottawa Paint Works, The, Ottawa, Ont.
Ramsay, A., & Son., Co., Montreal, Que.
Scarfe & Company, Brantford, Ont.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.

SHELL-FISH. (See **LOBSTERS, OYSTERS, and CLAMS**). Crabs, mussels, and cockles are less important kinds, but are used to some extent as food. Mussels are sold as bait.

SHELLS. (See **COWRIES, PEARLS, CHANKS, and CONCHS**). Various other shells are employed for ornamental purposes.

SHELLERS, Corn.

Cossit Co., Ltd., The, Brockville, Ont.
Dain Mfg. Co., Ltd., Welland, Ont.
Maxwell, David, & Sons, St. Mary's, Ont.
Moody, The Matthew, & Sons Co., Terrebonne, Que.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.

SHELVES, Glass.

Kinzinger, Bruce & Co., Ltd., Niagara Falls, Ont.
Toronto Plate Glass Importing Co., Ltd., Toronto.

SHELVING. (See Planing Mills.)

SHELVING, Metallic.

Brantford Oven & Rack Co., Ltd., Brantford, Ont.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Meadows, Geo. B., Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Office Specialty Mfg. Co., Ltd., Toronto, Ont.
Steel Equipment Co., Ltd., Ottawa, Ont.
Steel Trough & Machine Co., Ltd., The, Tweed, Ont.

SHERBET.

Jameson, W. A., Coffee Co., Victoria, B.C.

SHERRY, a dry white wine named after Xerez in Spain. (See **WINES**).

SHIELDS, Dress.

Crompton Corset Co., Ltd., Toronto, Ont.
Eisman & Co., Toronto, Ont.
Kleinert, I. B., Rubber Co., Toronto, Ont.

SHINGUARDS.

General Leather Goods, Ltd., Toronto, Ont.
Western Leather Goods Co., Ltd., Toronto, Ont.

SHINGLES.

Adams Burns Co., Ltd., Bathurst, N.B.
Baker Brook Lumber Co., Ltd., Baker Brook, N.B.
Bathurst Lumber Co., Ltd., Bathurst Village, N.B.
Beck, The C., Mfg. Co., Ltd., Penetanguishene, Ont.
Benjamin, S. P. Co., Ltd., Wolfville, N.S.
Booth, The W., Lumber Co., Ltd., Toronto, Ont.
Boyd, Mossom Co, Bobcaygeon, Ont.
British Canadian Lumber Co., Ltd., Vancouver, B.C.
British Columbia Mills Timber & Trading Co., Vancouver, B. C.
Brompton Pulp & Paper Co., East Angus, Que.
Bronson Lumber & Saw Mill Co., Ltd., Ottawa, Ont.
Brunette Saw Mill Co., Ltd., New Westminster, B.C.
Burrill Lumber Co., Three Rivers, Que.
Calhoun Lumber Co., Cauhoun, N.B.
Cameron Lumber Co., Ltd., Ottawa, Ont.
Canada Shingle Co., Ltd., Vancouver, B.C .
Canadian Western Lumber Co., Ltd., Fraser Mills, B.C.
Carew, John Lumber Co., Ltd., Lindsay, Ont.
Carkner, D. & Co., Kenmore, Ont.
Carss, The S. E., Lumber Co., Orillia, Ont.
Cascade Mills, Ltd., Vancouver, B.C.
Cascapedia Mfg. & Trading Co., Chaleurs, Que.
Chaleurs Bay Mills, Restigouche, Que.
Chandler & Jones Lumber Co., Snow Road, Ont.
Chew, Joseph, Lumber & Shingle Mfg. Co., Ltd., Vancouver, B.C.
Colonial Lumber Co., Ltd., Pembroke, Ont.
Continental Lumber Co., Ltd., River Charle, N.B.
Crockett, T. Riviere du Loup, Que.

Dalhousie Lumber Co., Ltd., The, Dalhousie, N.B.
Davidson, James, Ottawa, Ont.
Dumm, S. E., Lumber Co., Upper Kennetcook, N.S.
Eagle Lumber Co., Ltd., The, Montreal, Que.
Eau Claire & Bow River Lumber Co., Calgary, Alta.
Edwards, W. C. Co., Ltd., Ottawa, Ont.
Elliott, James S. & Son, Prescott, Ont.
Fenderson, John & Co., Inc., Sayabec, Que.
Fesserton Timber Co., The, Fesserton, Ont.
Forest Mills of British Columbia, Ltd., Revelstoke, B.C.
Fraser's, Ltd., Fredericton, N.B.
Georgian Bay Shook Mills, Ltd., Midland, Ont.
Gilchrist, John C., Toronto, Ont.
Grier, G. A., & Sons, Ltd., Montreal, Que.
Hancock, T. H., Toronto, Ont.
Harrison, John, & Sons, Co., Ltd., Owen Sound, Ont.
Hastings Shingle Mfg. Co., Ltd., The Vancouver, B.C.
Hilyard Bros., St. John, N.B.
Imperial Shingle Co., Ltd., Vancouver, B.C.
Joly de Lotbiniere, A., Leclercville, Que.
Keenan Bros., Ltd., Owen Sound, Ont.
Kirkpatrick, Thos., Victoria, B.C.
Kootenay Shingle Co., Ltd., Salmo, B.C.
Laidlaw, The R., Lumber Co., Ltd., Toronto, Ont.
Lake Superior Corporation, The, Sault Ste. Marie, Ont.
Laking Lumber Co., The, Wm., Toronto, Ont.
Lambert, A. G., & Co., Nelson, B.C.
Lea, Paul Co., Ltd., Moncton, N.B.
Louison Lumber Co., Ltd., Jacquet River, N.B.
Manitoulin Lumber Co., Ltd., Walkerville, Ont.
Maple Leaf Lumber Co., New Westminster, B.C.
McClearn Co., Ltd., The, Liverpool, N.S.
McLennan Lumber Co., Ltd., Montreal, Que.
McNair, Robert, Shingle Co., Vancouver, B.C.
McLachlin Bros., Ltd., Arnprior, Ont.
McLaren Lumber Co., Ltd., Brockville, Ont.
McLaurin, John R., Vankleek Hill, Ont.
Metis Lumber Co., Price, Que.
Mickle, Dyment Co., Ltd., Barrie, Ont.
Miller, Charles, St. John, N.B.
Molson, John W., Ste. Hippolyte, Que.
Moore, Moulthrop Co., Ltd., Cartier, Ont.
Moore & McDonald, Blind River, Ont.
Morrison, J. A., Morrison's Mills, N.B.
Murray & Gregory, St. John, N.B.
New Ladysmith Lumber Co., Ltd., Nanaimo, B.C.
Nicolet Falls, Pulp & Lumber Co., Nicolet Falls, Que.
Paquet & Godbout, St. Hyacinthe, Que.
Parrsboro Lumber Co., Parrsboro, N.S.
Parry Sound Lumber Co., Ltd., The, Toronto, Ont.
Patterson-Tilley Co., The, Hamilton, Ont.
Pearce Co., Ltd., Marmora, Ont.
Peterborough Lumber Co., Ltd., Peterborough, Ont.
Pigeon River Lumber Co., Port Arthur, Ont.
Piggott, John & Sons, Chatham, Ont.
Price Bros. & Co., Ltd., Quebec, Que.
Quance Bros. & Co., Ltd., Quebec, Que.
Quincy Adams Lumber Co., Ltd., Toronto, Ont.
Rastall, R.A., & Co., Toronto, Ont.
Rathbun Co, The, Deseronto, Ont.
Richardson, Jas. Co., Ltd., Matane, Que.
Richardson, Jas. Co., Ltd., Matane, Que.
Riordon Pulp & Paper Co., Montreal, Que.
Ritchie, R. & T., Ltd., Aylmer, Que.
River Valley Lumber Co., Ltd., Oromocto, N.B.
Rixon, Ainslie & Stoddart, Co., Ltd., Owen Sound, Ont.
Robertson & Hacket, Vancouver, B.C.
Salmon River Lumber & Shingle Co., Vancouver, B.C.
Sayre, F. E., & Co., Ltd., St. John, N.B.
Sheppard, Jas., & Son, Sorel, Que.
Shields Lumber Co., Ltd., Kamloops, B.C.
Shier, J. D., Lumber Co., Ltd., The, Bracebridge, Ont.
Shives Lumber Co., Ltd., Campbellton, N.B.
Smith, John B., & Sons, Ltd., Toronto, Ont.
Snowball, J. B. Co., Ltd., The, Chatham, Ont.
Spanish River Lumber Co., Ltd., Massey, Ont.
Sprague Lumber Co., Ltd., Winnipeg, Man.
Stetson Cutler & Co., St. John, N.B.
St. Maurice Lumber Co., Three Rivers, Que.
Surrie Shingle Co., Sullivan, B.C.
Tennant, Geo. Q., Bracebridge, Ont.
Terminal Lumber & Shingle Co., Ltd., Vancouver, B.C.
Thompson, The W. R., Co., Teeswater, One.
Thurston, Flavelle Co., Port Moody, B.C.
Trois Pistoles Pulp Lumber Co., Trois Pistoles, Que.
Truax & Son, Walkerton, Ont.
Victoria Harbor Lumber Co., The, Toronto, Ont.
Victoria Lumber & Mfg. Co., Ltd., Chemainus, B.C.
Vigars Shear Lumber Co., Ltd., Port Arthur, Ont.
Villeneuve et Cie., St. Jerome, Que.
Williamson & Crombie, Kingsbury, Que.
York & Sunbury Milling Co., Ltd., Gibson, N.B.

SHINGLES, Asbestos.

Asbestos Mfg. Co., Ltd., The, Montreal.
Canadian H. W., Johns-Hanville Co., Ltd., The, Toronto, Ont.

SHINGLES, Metal and Steel.

Aubry, A., & Fils., Montreal, Que.
Canadian Metal Shelter Co., Winnipeg, Man.
Galt Art Metal Co., Ltd., Galt, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Mettalic Roofing Co. of Canada, Ltd., The, Toronto, Ont., and Winnipeg, Man.
Ormsby, A. B., Co., Ltd., Toronto, Ont.
Pedlar People, Ltd., The, Oshawa, Ont.
Winnipeg Ceiling & Roofing Co., Winnipeg, Man.

SHINGLES, Slate, Asphalt.

Canadian Roofing Mfg. Co., Ltd., Windsor, Ont.
SHIPS, Passenger and Freight. (See Steamers and Yachts.)

SHIRT BOSOMS, Waterproof.

Arlington Co. of Canada, Ltd., The, Toronto, Ont.
Miller Bros. Co., Ltd., Montreal, Que.

SHIRTINGS, cotton fabrics, white or coloured, figured or plain.

SHIRTINGS.

Canadian Cottons, Ltd., Montreal, Que.
Cornwall & York Cotton Mills Co., Ltd., St. John, N.B.

SHIRTS, Cotton (Men's).

British Mfg. Co., Montreal, Que.
Canadian Converters Co., Ltd., The, Montreal,
Cluett, Peabody & Co., Inc., Montreal, Que.
Crescent Mfg. Co., Ltd., Montreal, Que.
Crown Shirt Co., Ltd., The, Winnipeg, Man.
Deacon Shirt Co., Belleville, Ont.
Drummond Shirt Co., Ltd., Drummondville, Que.
Dufferin Shirt Co., Ltd., Toronto, Ont.
Eaton, The T., Co., Ltd., Toronto, Ont.
Empire Shirt Mfg. Co., Louisville, Que.
Forsythe, The John, Co., Ltd., Berlin, Ont.
Goodhue, J. B., Rock Island, Que.
Hagen Shirt & Collar Co., Ltd., The, Berlin,
Henderson Mfg. Co., Winnipeg, Man.
Hudson Bay Knitting Co., Montreal, Que.
MacKenzie, Ltd., Ottawa, Ont.
Manhattan Shirt Co., Montreal, Que.
Monarch Shirt Co., The, Rock Island, Que.
Montreal Shirt & Overall Co., Ltd., Montreal.
Northern Shirt Co., Ltd., Winnipeg, Man.
Peabody's Sales Corporation, Ltd., Walkerville,
Peck, John W., & Co., Ltd., Montreal, Que.
Popular Shirt Company, Sorel, Que.
Regal Shirt Co., Ltd., Hamilton, Ont.
Sparks Bros., Ltd., Ottawa, Ont.
Standard Mfg. Co., The, Rock Island, Que.
Tolton, Harry, Berlin, Ont.
Union Overall Co., Winnipeg, Man.
Unitey Mfg. Co., Toronto, Ont.
Van Allan Co., Ltd., Hamilton, Ont.
Warwick Overall Co., The, Warwick, Que.

Wiegand, J. E., & Co., Berlin, Ont.
Wilkins, Robt. C., Co., Ltd., Farnham, Que.
Williams, Green & Rome Co., Ltd., Berlin, Ont.

SHIRTS, Flannel.

Deacon Shirt Co., Belleville, Ont.
Hagen Shirt & Collar Co., Ltd., The, Berlin.
Unity Mfg. Co., The, Toronto, Ont.

SHIRTS, Outing.

Dufferin Shirt Co., Ltd., Toronto, Ont.
Deacon Shirt Co., Belleville, Ont.
Forsythe, The John, Co., Ltd., Berlin, Ont.
Manhattan Shirt Co., Montreal, Que.
Northern Shirt Co., Ltd., Winnipeg, Man.
Peabody's Sales Corporation, Ltd., Walkerville.
Wiegand, J. E., & Co., Berlin, Ont.

SHIRTS, Top (Woollen.)

Acme Glove Works, Ltd., Montreal, Que.
Carss Mackinaw Clothing Co., Ltd., Orillia, Ont.
Clarke, A. R., & Co., Ltd., Toronto, Ont.
Canadian Converters Co., Ltd., The, Montreal.
Deacon Shirt Co., Belleville, Ont.
Hudson Bay Knitting Co., Montreal, Que.
MacKenzie, Ltd., Ottawa, Ont.
Penman's, Ltd., Paris, Ont.
Schofield Woollen Co., Ltd., Oshawa, Ont.
Smart-Woods, Ltd., Ottawa, Ont.
Simpson, Joseph, Sons, Ltd., Toronto, Ont.
Standard Woollen Mills, Ltd., The, Toronto.
Stobart, Sons & Co., Ltd., Winnipeg, Man.
Wilkins, Robt. C., Co., Ltd., Farnham, Que.

SHIRTS, Working.

British Mfg. Co., Montreal, Que.
Drummond Shirt Co., Ltd., Drummondville, Que.
Dufferin Shirt Co., Ltd., Toronto, Ont.
Empire Shirt Mfg. Co., Louisville, Que.
Finnie & Murray, Winnipeg, Man.
Goodhue, J. B., Rock Island, Que.
Great Western Garment Co., Ltd., The Edmonton, Alta.
Kitchen Overall & Shirt Co., Ltd., Brantford, Ont.:
Livingston Mfg. Co., Ltd., The, Montreal, Que.
Louiseville Shirt & Overall Co., Montreal, Que.
MacKenzie, Ltd., Ottawa, Ont.
Monarch Overall Mfg. Co., Winnipeg, Man.
Montreal Shirt & Overall Co., Ltd., Montreal.
Peerless Overall Co., Rock Island, Que.
Popular Shirt Company, Sorel, Que.
Premier Mfg. Co., Toronto, Ont.
Shag Proof Overall Co., Beebe, Que.
Standard Mfg. Co., The, Rock Island, Que.
Tolton, Harry, Berlin, Ont.
Union Overall Co., Winnipeg, Man.
Unity Mfg. Co., Toronto, Ont.
Warwick Overall Co., The, Warwick, Que.
Western Shirt & Overall Mfg. Co., Winnipeg, Man.
Western King Mfg. Co., Ltd., Winnipeg, Man.
Wilkins, Robt. C., Co., Ltd., Farnham, Que.

SHODDY, fabrics made from old woollen rags and cuttings. The fibres of soft woollen rags are especially called shoddy. Mungo is the fibre obtained from hard and fine woollen rags and new cloth cuttings, and extract wool is abstracted from mixed fabrics. The threads are cleaned, oiled, and sometimes mixed with fresh wool, and the material is made into rugs, druggets, clothing, yarn, &c. There are numerous shoddy mills in Batley, Dewsbury, and Leeds, in the United States, and some of this material is manufactured in France and Germany.

SHODDIES, Cotton.

Canada Wool Stock Co., Ltd., Dundas, Ont.
Montreal Blanket Co., Montreal, Que.
Simcoe Wool Stock Co., Simcoe, Ont.
Smith Mfg. Co., Ltd., Toronto, Ont.

SHODDIES, Wool.

Andrews, H. V., Toronto, Ont.
Montreal Blanket Co., Montreal, Que.
Simcoe Wool Stock Co., Simcoe, Ont.
Smith Mfg. Co., Ltd., Toronto, Ont.

SHOE DRILLS.

International Harvester Co. of Canada, Ltd., Hamilton, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.

SHOE HORNS.

Arlington Co. of Canada, Ltd., The, Toronto, Ont.

SHOE LININGS.

Dominion Textile Co., Ltd., Montreal, Que.
Galt Knitting Co., Ltd., The, Galt, Ont.
Johnston, H. B., & Co., Toronto, Ont.
Montreal Cottons, Ltd., Valleyfield, Que.
Newlands & Co., Galt, Ont.

SHOE PACKS.

Beal Brothers, Ltd., Toronto, Ont.
Gendron Penetang Shoe Co., Penetang, Ont.
Lake, The G. M. Co., Ltd., Bridgetown, N.S.
McKenzie, Crowe & Co., Ltd., Bridgewater, N.S.
Palmer, The John, Co., Ltd., Fredericton, Ont.
Palmer, McLennan Shoe Pack Co., Ltd., Fredericton, N.B.
Peters, C. H., Sons, Ltd., John, N.B.
Standard Mfg. Co., Ltd., Sackville, N.B.
Taylor, W. Parry Sound, Ont.

SHOE PEGWOOD.

Chalifour, O., Quebec, Que.
Constantin & O'Brien, Montreal, Que.

SHOES. (See BOOTS and SHOES).

SHOES, Car Brake. (See Brake Shoes.)

SHOES, Infants' Soft Sole.

Hurlbut Co., Ltd., The, Preston, Ont.
Packard, L. H., & Co., Ltd., Montreal, Que.
Rowen & Ogg Co., Ltd., Guelph, Ont.
St. Hyacinthe Soft Sole Shoe Co., Ltd., St. Hyacinthe, Que.

SHOES, Leather.. (See Boots and Shoes, Leather.)

SHOES, Rubber. (See Boots and Shoes, Rubber.)

SHOES, Tennis, Rubber-Soled.

Kaufman Rubber Co., Ltd., Berlin, Ont.

SHOLA, or Sola.—The white pith of an Indian leguminous plant, which is made into light and cool hats and sun helmets.

SHOOKS, sets of wooden staves and battens for making sugar-boxes, hogsheads, and casks.

SHORTS.. (See Feeds.)

SHOT.—All solid projectiles with which firearms are loaded are called shot. Those for cannon and machine-guns are made of cast iron or steel, and when more than 3 lbs. in weight contain a small cavity. Shot for small-arms are made of lead. Bullets are cast in moulds, and small shot for sporting purposes are formed by dropping molten lead, mixed with a little arsenic, through a colander into water, 100 to 250 feet below. The larger the shot the greater the height required. Misshapen shot, which will not roll down an inclined plane, are rejected, and the perfect globules are polished with a little plumbago.

SHOT.

Steel Co. of Canada, Ltd., Montreal, Que.

SHOT GUNS, (See also Rifles.)

Tobin Arms Mfg. Co., Ltd., Woodstock, Ont.

SHOULDER BRACES.

Globe Suspender Co., Rock Island, Que.
Ottawa Truss & Surgical Mfg. Co., Ltd., Ottawa, Ont.
Parisian Corset Mfg. Co., Ltd., The, Quebec, Que.

SHOVELS, Fire.

Davidson, The Thomas, Mfg. Co., Ltd., Montreal, Que.
McClary Mfg. Co., London, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Wolfe, George, & Sons, Ltd., Montreal, Que.

SHOVELS, Snow (Iron or Steel.)

Canada Steel Goods Co., Ltd., Hamilton, Ont.
Canadian Shovel & Tool Co., Ltd., The, Hamilton, Ont.
Erie Iron Works, Ltd., St. Thomas, Ont.
Jones, D. F., Mfg. Co., of Gananoque, Ltd., Gananoque, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Steel Equipment Co., Ltd., Ottawa, Ont.
Wolfe, George, & Sons, Ltd., Montreal, Que.

SHOVELS, Snow (Wood.)

Gelinas, C. P., & Frere, Three Rivers, Que.
Thomas Brothers, Ltd., St. Thomas, Ont.

SHOVELS, Steam. (See Steam Shovels.)

SHOVELS, Steel (Square and Round Point.)

Canadian Shovel & Tool Co., Ltd., The, Hamilton, Ont.
Dodge Mfg. Co., Ltd., Toronto, Ont.
Hamilton Facing Mill Co., Ltd., Hamilton, Ont.
Jones, D. F., Mfg. Co., of Gananoque, Ltd., Gananoque, Ont.
Lundy Shovel & Tool Co., Ltd., Peterborough, Ont.
Wolfe, George, & Sons, Ltd., Montreal Que.

SHOWCASES, Floor and Wall.

Anglin, C., & Co., Kingston, Ont.
Burton & Baldwin Mfg. Co., Ltd., Hamilton, Ont.
Canada Showcase Co., Ltd., Toronto, Ont.
Chappell Brothers & Co., Ltd., Sydney, N.S.
Christie Woodworking Co., Ltd., St. John, N.B.
Clatworthy & Son, Toronto, Ont.
Cushing Bros. Co., Ltd., Calgary, Alta.
Delfosse & Co., Montreal.
Dominion Office & Store Fitting Co., Ltd., London, Ont.
Fabien, C. P., Montreal, Que.
Hadley, The S., Lumber Co., Ltd., Chatham, Ont.
Hanbury Mfg. Co., Ltd., Brandon, Man.
Jones Brothers & Co., Ltd., Toronto, Ont.
Kent-McClain, Ltd., Toronto, Ont.
Knight Bros. Co., Ltd., Burk's' Falls, Ont.
Kyle's Cabinet Works, Ltd., Ottawa, Ont.
McIntyre Mfg. Co., Alliston, Ont.
Montreal Show Case Co., Montreal, Yue.
Murray, G. W., Co., Ltd., Winnipeg, Man.
Newbigging Cabinet Co., Ltd., The, Hamilton, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Piggott, John, & Sons, Chatham, Ont.
Reardon, Frank, Halifax, N.S.
Rose-Perry, J. D., & Co., Vancouver, B.C.
Ryan Brothers, Winnipeg, Man.
Spencer Brothers & Turner, Ltd., Truro, N.S.
St. John Desk and Show Case Co., St. John, N.B.
Walker Bin & Store Fixture Co., Ltd., The, Berlin, Ont.
Weiler Brothers, Victoria, B.C.
Western Mfg. Co., Ltd., The, Regina, Sask.
Winnipeg Cabinet Factory, Ltd., Winnipeg, Man.
Winnipeg Paint & Glass Co., Ltd., Winnipeg, Man.
Woodcrafts Ltd., Calgary, Alta.

SHOWERS, Bath.

Kinzinger, Bruce & Co., Ltd., Niagara Falls, Ont.
Morrison, The Jas. Brass Mfg. Co., Ltd., Toronto, Ont.
Robertson, The James, Co., Ltd., Toronto, Ont.
Standard Sanitary Mfg. Co., Ltd., Toronto, Ont.

SHREDDERS, Corn.

White, The George, & Sons, Co., Ltd., London, Ont.

SHRIMPS.—The common shrimp is abundant on the British seas and on the coasts of Northern Europe and America. Off the coast of California also large quantities are taken by Chinese. Prawns are larger and more esteemed by many connoisseurs.

SHRUB, a liqueur made of rum flavoured with sugar and the juice of limes or lemons.

SHUDE, the husks of rice and other refuse from rice-mills sold to mix with oil-cake.

SHUTTERS.

Aitchison, D., & Co., Hamilton, Ont.
Anglin, S., & Co., Kingston, Ont.
Ball Planing Mill Co., Ltd., The, Barrie, Ont.
Bobcaygeon Lumber Co., Bobcaygeon, Ont.
Brennan, The M. & Sons, Mfg., Co., Ltd., Hamilton, Ont.
British Columbia Mills Timber & Trading Co., Vancouver, B.C.
Brockville Lumber Co., Ltd., Brockville, Ont.
Canadian Woodworking Co., Ltd., Yarmouth, N.S.
Carriere & Frere La Cie., Montreal, Que.
Shagnon, H., & Co., Montreal, Que.
Cushing Bros. Co., Ltd., Calgary, Alta.
Davidson, Jas., Ottawa, nOt.
Demers, Paul, Montreal, Que.
Dempster, Estate of Jas., Halifax, N.S.
Edwards, W. C., & Co., Ltd., Ottawa, Ont.
Georgian Bay Shook Mills, Ltd., Midland Ont.
Gignac, J. H., Ltd., Quebec, Que.
Harrison, John, & Sons Co., Ltd., Owen Sound, Ont.
Kerr, J. & J., Co., Ltd., Petrolia, Ont.
Laidlaw, The R. Lumber Co., Ltd., Toronto, Ont.
Leduc & Fortin Beauharnois, Que.
Lemon, Gonnason & Co., Ltd., Victoria, B.C.
MacInnes, John, & Sons, Ltd., Halifax, N.S.
McAuliffe Davis Lumber Co., Ltd., The, Ottawa, Ont.
Murray & Gregory, Ltd., St. John, N.B.
Nesbitt, E. T., Quebec, Que.
Pauze, U., & Fils, Co. Montreal, Que.
Pearce Co., Ltd., The, Marmora, Ont.
Pringle Co., The Belleville, Ont.
Rastall, R. A., & Co., Toronto, Ont.
Rathbone, Geo., Ltd., Toronto, Ont.
Rathbun Co., The, Deseronto, Ont.
Rutherford, The Wm., Sons Co. Ltd., Montreal.
Sarassin, Napoleon, et Fils, Ltd., Montreal.
Schultz Bros. Co., Ltd., The, Brantford, Ont.
Tremblay, F., & Co., Montreal, Que .
Watson-Smith Co., Ltd., The, Toronto, Ont.

SHUTTERS, Iron and Metal.

British American Hardware Mfg. Co. Toronto.
Dennis Iron & Wire Works Co., Ltd., London, Ont.
Meadows, Geo. B., Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Ormsby, A. B., Co., Ltd., Toronto, Ont.
Pedlar People, Ltd., The, Oshawa, Ont.
Riddell, John E., & Son, Hamilton, Ont.
Steel & Radiation, Ltd., Toronto, Ont.
Taylor, J. & J ., Ltd., Toronto, Ont.

SHUTTLES.

Lachute Shuttle Co., Ltd., Lachute Mills, Que.

SIDEBOARDS.

Anthes Furniture Co., The, Berlin, Ont.
Beach Furniture Co., The, Cornwall, Ont.
Bell Furniture Co., Ltd., The, Southampton, Ont.
Crown Furniture Co., The, Preston, Ont.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Durham Furniture Co, Ltd., Durham, Ont.
Eastern Townships Furniture Mfg. Co., Arthabaska, Que.
Gibbard Furniture Co., Ltd., Napanee, Ont.
Harriston Furniture Mfg. Co., Harriston, Ont.
Hepworth Mfg. Co., Ltd., The, Hepworth, Ont.
Hespeler Furniture Co., Ltd., Hespeler, Ont.
Kensington Furniture Co., Goderich, Ont.
Knechtal Furniture Co., Ltd., Hanover, Ont.
Krug Bros. Co., Ltd., Chesley, Ont.
Malcolm, The Andrew, Furniture Co., Ltd., Kincardine, Ont.
Markdale Furniture Co., Ltd., The, Markdale, Ont.
McLagan, The George, Furniture Co., Ltd., Stratford, Ont.
Meaford Mfg. Co., Ltd., Meaford, Ont.
North American Furniture Co., Ltd., Owen Sound, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Oliver, J., & Sons, Ltd., Ottawa, Ont.
Rogers Chas., & Sons Co., Ltd., Toronto, Ont.
St. Lawrence Furniture Co. Riviere du Loup, Que.
Spiesz Furniture, Ltd., The, Hanover, Ont.
Stratford Chair Co., Stratford, Ont.
Strathroy Furniture Co., Ltd., Strathroy, Ont.
Toronto Furniture Co., Ltd., Toronto, Ont.
Victoriaville Furniture Co. Victoriaville, Que.
Windsor Furniture Co., Ltd., Windsor, N.S.

SIDE DELIVERY RAKES.

Cossit Co., Ltd., The, Brockville, Ont.
Dain Mfg. Co., Ltd., Welland, Ont.
Frost & Wood Co., Ltd., The, Smith's Falls, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Maxwell, David, & Sons, St. Mary's, Ont.
Noxon Co., Ltd., The Ingersoll Ont.

SIDING, Asbestos.

..Canadian H. W. Johns-Manville Co., Ltd., The, Toronto, Ont.

SIDING, Iron, Steel and Metal.

Campbell & Grill, Vancouver, B.C.
Capital Sheet Metal Works, Edmonton, Alta.
Galt Art Metal Co., Ltd., The, Galt, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Metallic Roofing Co. of Canada, Ltd., The Toronto, Ont., and Winnipeg, Man.
Ormsby, A. B., Co., Ltd., Toronto, Ont., and Winipeg, Man.
Pedlar People, Ltd., The, Oshawa, Ont.
Sheet Metal Mfg. Co. Ltd., Calgary, Alta.
Sheet Metal Products of Canada, Ltd., Toronto,
Tracey, John R., Vancouver, B.C.
Wheeler & Bain, Toronto, Ont.
Winnipeg Ceiling & Roofing Co., Winnipeg, Man.
Wright, J. T., Winnipeg, Man.
Wright, J. W., Winnipeg, Man.

SIDING, Wood. (Bevelled.) See Planing Mills.

SIEVES, Flour, Meal, Moulding Sand.

Canada Wire & Iron Goods Co. Hamilton, Ont.
Greening, The B., Wire Co., Ltd., Hamilton, Ont.
Hamilton Facing Mill Co., Ltd., Hamilton, Ont.
Meadows, Geo. B., Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Structural Steel Co., Ltd., Montreal, Que.

SIFTERS, Ash.

Collins Mfg. Co., The, Toronto, Ont.
Fairgrieve Metal & Stamping Co., Toronto, Ont.
Granby Hardware Mfg. Co., Granby, Que.

SIFTERS, Flour.

Gardner, Robt., & Son, Ltd., Montreal, Que.
Wright, E. T. & Co., Hamilton Ont.

SIGNS, Advertising (Electric.)

Denis Advertising Signs, Ltd., The, Montreal.
Electrical Construction Co., Ltd., The, London, Ont.
Meyercord Co., Ltd., The, St. Catharines, Ont.
Syme Signs, Winnipeg, Man.
Turner, J. & J., & Sons, Peterborough, Ont.

SIGNS, Advertising (Glass.)

Booth, G. & Son, Toronto, Ont.
Hobbs Mfg. Co., Ltd., The, London, Ont.

SIGNS, Advertising (Metal.)

Booth, G. & Son, Toronto, Ont.
Davidson, The Thos. Mfg. Co., Ltd., Montreal.
Macdonald Mfg. Co., Ltd., Toronto, Ont.
Winnipeg Wire & Iron Works, Winnipeg, Man.

SIGNS, Brass.

Barnard, H., Co., Ltd., Hamilton, Ont.
Booth, G. & Son, Toronto, Ont.
Cummings Brass, Iron & Wire Co., Ltd., Winnipeg, Man.
Dennis Iron & Wire Works Co., Ltd., London, Ont.
Hamilton Stamp & Stencil Works, Ltd., Hamilton, Ont.
Garth Company, The, Montreal, Que.
Hamilton Brass Mfg. Co., Ltd., Hamilton, Ont.
Mitchell, The Robt. Co., Ltd., Montreal, Que.
Montreal Stencil Works, Montreal, Que.
Patterson & Heward, Toronto, Ont.
Superior Mfg. Co., Ltd., Toronto, Ont.
Tallman Brass & Metal Co., Hamilton, Ont.
Toronto Brass Mfg. Co., Toronto, Ont.
Toronto Stamp & Stencil Co., Ltd., Toronto.
Walker & Campbell, Montreal, Que.

SIGNS, Cloth and Fibre.

Colonial Weaving Co., Ltd., Peterborough, Ont.
Duncan Lithographing Co., Ltd., Hamitlon, Ont.
Martel, Stewart, Western, Ltd. The, Winnipeg, Man.
Meyercord Co., Ltd., The, St. Catharines, Ont.
Turner, J. & J., & Sons, Peterborough, Ont.

SIGNS, Embossed (Tin.)

Macdonald Mfg. Co., Ltd., Toronto, Ont.
Patterson & Heward, Toronto, Ont.
Syme Signs, Winnipeg, Man.

SIGNS, Enameled.

McClary Mfg. Co., London, Ont.

SIGNS, Lithographed and Embossed.

Meyercord Co., Ltd., The, St. Catharines, Ont.

SIGNS, Wire.

Dennis Iron & Wire Works Co., Ltd., London, Ont.
Greening, The B., Wire Co., Ltd., Hamilton, Ont.
Manitoba Anchor Wire Fence Co., Ltd., The, Winnipeg, Man.
Meadows, Geo. B., Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Munro Steel & Wire Works, Ltd., Winnipeg, Man.

SIGNS, Wood Panel.

Meyercord Co., Ltd., The, St. Catharines, Ont.
Syme Signs, Winnipeg, Man.

SILICA.

Canadian Talc & Silica Co., Ltd., Madoc, Ont.
Dominion Feldspar, Ltd., Toronto, Ont.
Silica Barytic Stone Co., Ingersoll, Ont.

SILK is produced by upwards of 200 insects, principally in the farm of a cocoon or covering within which they are enclosed, but that produced by the mulberry silk-moth of China, and a few others closely allied to that insect, is the only one commercially valuable. The silk-moth or worm is native to China, where its product is believed to have been used 3,400 years previous to the Christian era. The mulberry moth (Bombyx Mori) or silk worm, is about the least conspicuous of the family, (Lepidoptera), belonging to the (Bombycidæ). It is of an ashy white colour, about ½ inch in length. The larva attains to a length of from 3 to 3½ inches and feeds upon the leaves of the mulberry trees. As it approaches maturity its glands become gorged with a clear viscous fluid hich hardens when exposed to the air and from which silk-gut is made. But for the silk fibre the larva is allowed to mature when it proceeds to spin its cocoon, ejecting from its glands two continuous and reelable threads of 800 to 1,200 yards in length, spending some three days in the operation.

The silk-worms are reared under artificial and domesticated conditions where their feeding, the formation of cocoon, the securing of these before they are injured or pierced by the moths and the maturing of a sufficient number of eggs for subsequent cultivation is the principles of the art of sericulture. This has made it possible to produce the fibre in Japan, India, France, Italy and other countries where the mulberry tree thrives.

The cocoons are gathered as soon as the moth has finished its work, and those which have not been injured are cleaned from any foreign matter, sorted for quality, evenness and regularity of fibre and made ready for reeling, in which operation the filaments, generally from four or five or sometimes twenty cocoons, are brought together and formed into one continuous, uniform and regular strand, the "raw silk" of commerce. The cocoons are prepared so as to soften the gum holding the filaments together and insure the perfect unwinding of the fibre. The injured or broken cocoons are cleaned, prepared, corded and spun, producing the ordinary "spun silk" of commerce.

The first process in manufacture after the filature or reeling is "throwing", wherein the strands of raw silk from the reeling operation are twisted and doubled into a more substantial yarn. The raw silk is received from the filature in hanks from which it is wound and then doubled and twisted. After throwing the silk is conditioned, that is to contain a certain standard of moisture, then scoured and made ready for the dyeing and subsequent operations. The total annual production of raw silk amounts to about fifty-three million pounds, the approximate production of the various producing countries in millions of pounds being: France 1½, Italy 10, Spain 1-5, Austria Hungary 4-5, Brutia 1, Syria and Cypress 1, Salonica and Adrianople ½, Caucasus 1, Persia and Turkey 1¼, Shanghai 12½, Canton 5, Japan 17, Calcutta and Bombay ½. The art of sericulture has made great progress until now, the production in all these countries is valuable. That of China and Japan is the finest, being closely followed by the French and Italian products. The imports of raw silk into Canada during the fiscal year ending March 31, 1914, amounted to 101,669 pounds, valued at $335,385, the imports of spun silk to 59,416 pounds, valued at $144,375 and the imports of silk cacoons and silk waste were valued at $370. The total imports of silk and manufactures of during the same period were valued at $9,721,328.

SILK COTTON.—Silky fibres are obtained from several trees of the natural order of Malvaceæ. This fibre, which covers the seeds, is too short for spinning, but is used for stuffing pillows, mattresses, &c. **(See also VEGETABLE HAIR).**

SILK GRASS. (See PITA).

SILK, Ribbons, Embroidery, Knitting, Etc.

Belding-Paul-Corticelli, Ltd. Montreal, Que.

SILKS, Gloves.

Niagara Silk Mills, Ltd., Brantford, Ont.
St. Catharines Silk Mills, St. Catharines, Ont.
Julius Kayser & Co., Sherbrooke, Que.

SILK, Hosiery.

Niagara Silk Mills, Ltd., Brantford, Ont.
Mercury Mills, Ltd., Hamilton, Ont.
Allen Bros. Co., Toronto. Ont.
Penman's, Ltd. Paris, Ont.
Reliance Knitting Co.. Toronto, Ont.

SILK, Labels. (See under labels.)

SILK THREAD. (See under thread.)

SILK TRIMMINGS.. (See under braids.)

SILK NECKWEAR.

Sterling Neckwear Co., Toronto, Ont.
A. T. Reid Co., Ltd., Toronto, Ont.

SILKWORM GUT, the drawn out spinning glands of the silkworm. When these are fully distended the worms are soaked in vinegar and then the glands are drawn out. They are prepared in China, Italy, and Spain for fishing-tackle.

SILOS, Metal.

De Laval Dairy Supply Co., Ltd., Peterborough, Ont.
MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.

SILOS, Wood.

Holton Lumber Co., Ltd., Belleville, Ont.

SILVER.—Sometimes occurs in a native state but more common in the form of silver ore, principally argentite. A large percentage of the production occurs in connection with other metals, especially lead and copper. Silver is manufactured into ornamental articles, plate and jewellery, mixed with alloy for it is too soft to use alone and is drawn out into wire and beaten into thin plates for decorative purposes. Silver is also used to some extent in drugs. A large part of the supply of silver is minted. It was the chief coinage in most countries and the standard until the latter part of the last century and though a gold standard has been adopted by most countries, islver is still of importance and in many countries legal tender to any amount. In Asia, silver is still the medium of exchange. English standard silver consists of 925 parts of pure silver to 25 parts of copper. In Great Britain silver is legal tender only to 40s. In Canada it is legal tender only up to $1.00.

In comparing the market prices of silver in London with the market prices of silver in New York, it must be remembered that the London quotation is for British standard silver, namely, .925 fine, while the New York quotation is for pure silver, that is, 1.000 fine.

The world's production of silver in 1913 was 224,310,654 fine ounces, valued at $137,883,800. Of this 139,232,726 fine ounces were coined into money. The principal countries, together with the amounts coined respectively, are as follows:—

	Fine Ounces.
British India	58,858,610
China	28,626,109
Germany	8,215,335
Austria-Hungary	7,240,937
Russia	6,899,501
Great Britain	5,695,403
Dutch East Indies	4,800,317
Indo China (French Colony)	4,698,403
Mexico	3,102,878
France	2,906,555
Morocco	2,847,191
United States	2,303,392
British South Africa	2,243,543
Japan	2,234,350
Italy	2,171,365
Portugal	1,563,139
Siam	1,160,618
Servia	1,138,850

Canada is the third largest producer of silver in the world. Her production for 1913 was 31,750,618 fine ounces, of which Ontario, principally the Cobalt Mines, produced 28,452,737 fine ounces, and British Columbia 3,208,122 fine ounces. The Canadian exports of silver for the year ending March 31st, 1914, amounted to $20,971,538.

SILVER PLATE. (See **PLATED GOODS**).

SILVER and SILVER MATTE.

Consolidated Mining & Smelting Co. of Canada, Ltd., Trail, B.C.

SILVER-PLATE AND SILVER-PLATED GOODS.

Benedict-Proctor Mfg. Co., Ltd., Toronto, Ont.
Birks, Henry & Sons, Ltd., Montreal, Que.
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
Ellis, P. W., & Co., Ltd. Toronto, Ont.
McGlashan, Clarke Co., Ltd., Niagara Falls Ont.
Meriden Britannia Co., Hamilton, Ont.
Pearce, Henry, Montreal, Que.
Reinhardt Mfg. Co., Ltd., Montreal, Que.
Rogers, The Wm., Mfg. Co., Ltd., Niagara Falls, Ont.
Standard Silver Co. of Toronto, Ltd., Toronto.
Toronto Silver Plate Co., Ltd., Toronto, Ont.

SILVERSMITHS.

Benedict-Proctor Mfg. Co., Ltd., Toronto, Ont.
Foster, T. W., & Bro., Co., Kingston, Ont.
Porte & Markle, Winnipeg, Man.
Royal Silver Plate Co., Montreal.

SILVERWARE, Sterling.

Birks, Henry & Sons, Ltd., Montreal, Que.
Ellis, P. W., & Co., Ltd. Toronto, Ont.
McGlashan, Clarke Co., Ltd., Niagara Falls Ont.
Meriden Britannia Co., Hamilton, Ont.
Pearce, Henry, Montreal, Que.
Roden Bros., Ltd., Toronto, Ont.
Standard Silver Co. of Toronto, Ltd., Toronto.
Toronto Silver Plate Co., Ltd., Toronto, Ont.

SIMARUBA. (See **QUASSIA**).

SINGHARA NUTS, the seeds of an aquatic plant. They form a large part of the food of the inhabitants of Kashmir.

SINGLE DISC DRILLS.

Hamilton, Peter, Co., Ltd., Peterborough, Ont.
International Harvester Co. of Canada, Ltd., Hamilton, Ont.
Kemp, W. I., Co., Ltd., Stratford, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Moody, The Matthew & Sons Co., Ltd., Terrebonne, Que.
Watson, John, Mfg. Co., Ltd. Ayr, Ont.

SINKS, Cast Iron.

Amherst Foundry Co., Ltd., Amherst, N.S.
Garth Company, The, Montreal, Que.
McDougall, R., Co., Ltd., Galt, Ont.
Smart, The Jas. Mfg. Co., Ltd., Brockville, Ont.
Standard Ideal Co., Ltd., Port Hope, Ont.
Toronto Hardware Mfg. Co., The, Toronto, Ont.

SINKS, Enameled and Galvanized.

Amherst Foundry Co., Ltd., Amherst, N.S.
Sheet Metal Products Co., of Canada, Ltd., Toronto, Ont.
Standard Ideal Co., Ltd., Port Hope, Ont.
Standard Sanitary Mfg. Co., Ltd., Toronto, Ont.

SISAL HEMP, the fibre of Agave Sisalana, so named because it was first exported from the port of Sisal in Yucatan. It is especially valuable for ships' cables, as it resists the action of sea-water better than other material. About 399,000 tons are produced in Mexico, and the plant is cultivated in Central America and the Bahamas.

SISSOO, the wood of Dalbergia Sissoo, very strong and elastic. (See **ROSEWOOD**).

SIZE, fine light-coloured glue, used for sizing paper walls, &c., and for stiffening straw, cotton, and other plaited materials for hats.

SIZE, Resin.

Marquis, F. Canac, Quebec, Que.
Process Engineers, Ltd., Montreal, Que.

SIZING, Paper. (See Glue.)

SKATES, Hockey and Spring.

Canada Cycle & Motor Co., West Toronto, Ont.
Lunn, G. J., & Co., Montreal, Que.
Starr Mfg. Co., Ltd., Dartmouth, N.S.

SKEINS, Wagon and Truck.

Cananoque Spring & Axle Co., Ltd., Gananoque. Ont.
London Foundry Co., Ltd., The, London, Ont.
Woodstock Wind Motor Co., Ltd., Woodstock, Ont.

SKEWERS, Wood.

Harrison, John, & Sons Co., Ltd., Owen Sound, Ont.
Keenan Woodenware Mfg. Co., Ltd., Owen Sound, Ont.

SKINS. (See **HIDES** and **FURS**).

SKIPS, Coal, Ore, Etc.

Beatty, M., & Sons, Ltd., Welland Ont.
Jenckes Machine Co., Ltd. Sherbrooke, Que.
Sudbury Construction & Machinery Co., Ltd., The, Sudbury, Ont.

SKIRTS.

Allen Mfg. Co., Ltd., Toronto, Ont.
Bishinsky Brothers, Montreal, Que.
Boulter, The H. C. Co., Ltd., Toronto, Ont.
Continental Costume Co., Ltd., Toronto, Ont.
Crystal Skirt Mfg. Co., The, Montreal, Que.
Eagle Skirt & Cloak Mfg. Co., Montreal, Que.
Economic Clothing Co., Ltd., The, Quebec, Que.
Fashion Dress & Waist Co., Ltd., Montreal.
Leon Costume Co., Winnipeg, Man.
Princess Mfg. Co., Ltd., Toronto, Ont.
Queen Skirt Co., Montreal, Que.
Solin Brothers, Montreal, Que.
Stylecraft Mfg. Co., The, Montreal, Que.
Tackaberry's, Ltd., Toronto, Ont.
Telford Bros. Garment Co., Rock Island, Que.
Thompson Mfg. Co., Ltd., Toronto, Ont.

SKIRTS, Dress.

Canada Cloak Co., Ltd., Toronto, Ont.
Canadian Converters Co., Ltd., The, Montreal, Que.
Colonial Whitewear Co., Ltd., The, Guelph, Ont.
Consolidated Cloak Co., Ltd., Toronto, Ont.
Davison & Oakley, Ltd., Toronto, Ont.
Dupuis Freres, Ltd., Montreal, Que.
Eclipse Cloak Co., Montreal, Que.
Eclipse Whitewear Co., Ltd., Toronto, Ont.
Fairbairn, R. D. Co., Ltd., Toronto, Ont.
Felsen-Brennen Co., Montreal, Que.
Gale Mfg. Co., The Toronto, Ont.
Hart Mfg. Co., The, Montreal, Que.
Helena Costume Co., Ltd., London, Ont.
Ideal Women's Wear, Ltd., Toronto, Ont.
"Imperial, The," Montreal, Que.
Livingston & Scott, West Toronto, Ont.
McKinnon, S. F., & Co., Ltd., Toronto, Ont.
Montreal Skirt & Cloak Mfg. Co., Montreal, Que.
Murray-Kay, Ltd., Toronto, Ont.
National Skirt Mfg. Co., Montreal, Que.
Northway, John & Son, Ltd., Toronto, Ont.
Regal Mfg. Co., Montreal, Que.
Sommer, A. & Co., Montreal, Que.
Victor Mfg. Co., The, Quebec, Que.
Wilson & Waldmon Costume Co., The, Toronto.

SKIRTS, Knitted.

Scott Knitting Co., Toronto, Ont.

SKUNK, a small animal of the weasel tribe, more disagreeably odoriferous than any other of the family. The common skunk is common throughout North America, and is particularly abundant in the Hudson Bay region. The fur of the skunk is much sought after, and is often passed off as Alaska sable.

SKYLIGHTS, Fireproof.

Donohue, Jas., Halifax, N.S.
Galt Art Metal Co., Ltd., The, Galt, Ont.
Hope, Henry, & Sons, Ltd., Toronto, Ont.
Irwin, Thos., & Son, Hamilton, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Metallic Roofing Co. of Canada, Ltd., The, Toronto, Ont., and Winnipeg, Man.
Ormsby, A. B. Co., Ltd., Toronto, Ont.
Pedlar People, Ltd., The, Oshawa, Ont.
Reed, Geo. W., & Co., Ltd., Montreal, Que.
Riddell, John E., & Son, Hamilton, Ont.
Sheet Metal Mfg. Co., Ltd., Calgary, Alta.
Stevely, W., & Son, London, Ont.
Wheeler & Bain, Toronto, Ont.
Winnipeg Ceiling & Roofing Co., Winnipeg, Man.

SLAG.—The slag of blast-furnaces, of which enormous quantities are produced, consists almost entirely of silicate of lime and alumina. It is moulded into bricks and slabs for paving, and by the action of steam is made into fine threads called slagwool or silicate cotton, which is a bad conductor of heat and sound, and is therefore used to cover boilers and to prevent sound passing through floors.

SLAG.

Canada Crushed Stone Corporation, Ltd., Dundas, Ont.

SLAG, Blast Furnace.

Canada Iron Corporation, Ltd., Londonderry, N.S.

SLATE, a fine-grained argillaceous rock easily split into thin plates. It is made into roofing and school slates, dairy fittings, cisterns, chimney-pieces, &c. Slate is mined in large quantities in Wales, in the Ardennes, and in the United States, especially in Pennsylvania.

SLATE and MARBLE, for Switchboards.

Marble & Tile Co., of Canada, Ltd., St. Boniface, Man.
Patterson & Chandler, Vancouver, B.C.
Smith Marble & Construction Co., Ltd., Montreal, Que.

SLEDGES.

Fowler, Josiah, Co., Ltd., St. John, N.B.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Whitman & Barnes Mfg. Co., St. Catharines, Ont.

SLEEVE PROTECTORS.

Eisman & Company, Toronto, Ont.
Neckwear & Fancy Goods Co., The, St. John, N.B.

SLEIGHS and SLEDS, Children's.

Chatham Malleable & Steel Mfg. Co., Chatham,
Gendron Mfg. Co., Ltd., Toronto, Ont.
Gignac, J. H., Ltd., Quebec, Que.
James & Reid, Perth, Ont.
Richards-Wilcox Canadian Co., Ltd., London, Ont.
Shantz, P. E., Preston, Ont.
Taylor, Scott & Co., Ltd., Palmerston, Ont.

SLEIGHS, Doll.

Gendron Mfg. Co., Ltd., Toronto, Ont.

SLEIGHS, Farm and Logging.

Adams Wagon Co., Ltd., Brantford, Ont.
Bain Wagon Co., Ltd., Woodstock, Ont.
Bruce Agricultural Works, The, Teeswater, Ont.
Canada Carriage Co., Ltd., Brockville, Ont.
Chatham Malleable & Steel Mfg. Co., Chatham, Ont.
Dick, William, Bolton, Ont.
Dufour, Joseph, Ottawa, Ont.
Gregg Mfg. Co., Ltd., Winnipeg, Man.
Gleeson Brothers, London, Ont.
Latour & Frere, Lesage, Que.
McFarlane's Wagon Works, Nashwaaksis, N.B.
Munro & McIntosh Carirage Co., Ltd., Alexandria, Ont.
Noxon Co., Ltd., The, Ingersoll, Ont.
Petrolia Wagon Co., Ltd., Petrolia, Ont.
Smith Brothers, Toronto, Ont.
Templin Mfg. Co., The, Fergus, Ont.
Tudhope-Anderson Co., Ltd., Orillia, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.
Whitaker, Wm., & Sons, Oakville, Ont.
Woodstock Wagon & Mfg. Co., Ltd., Woodstock, Ont.

SLEIGHS, Light Delivery or Passenger.

Barrie Carriage Co., Ltd., Barrie, Ont.
Baynes Carriage Co., Ltd., The, Hamilton, Ont.
Boyce Carriage Co., Ltd., Brantford, Ont.
Brantford Carriage Co., Ltd., Brantford, Ont.
Brown, S., Toronto, Ont.
Campbell Geo. & Sons, Ltd., Sackville, N.S.
Canada Carriage Co., Ltd., Brockville, Ont.
Clark, J. & Sons, Ltd., Fredericton, N.B.
Crow, T. A., Toronto, Ont.
Dufour, Joseph, Ottawa, Ont.
Finnegan Carriage & Wagon Co., Ltd., The, Belleville, Ont.
Gleeson Brothers, London, Ont.
Granby Carriage Co., The, Granby, Que.
Heard, John & Co., St. Thomas, Ont.
Heney Carriage & Harness Co., Ltd., Montreal.
Jennings, A. & Co., Montreal, Que.
Lawric Wagon & Carriage Co., Winnipeg, Man.
Ledoux Carriage Co., Ltd., The, Montreal, Que.
Lewis Carriage Works, Ltd., Winnipeg, Man.
McKenzie Carriage Works, Brandon, Man.
McKie Buggy Co., Plattsville, Ont.
McLaughlin Carriage Co., Ltd., Oshawa, Ont.
Mount Forest Carriage Co., Ltd., Mount Forest, Ont.
Munro & McIntosh Carirage Co., Ltd., Alexandria, Ont.
Nova Scotia Carriage & Motor Car Co., Ltd., Amherst, N.S.
Patterson, J. D., & Co., Hamilton, Ont.
Simpson, The I. Mfg. Co., Ltd., Brantford, Ont.
Thompson, W. J., & Sons, London, Ont.
Tudhope Carriage Co., Ltd., Orillia, Ont.
Union Carriage Co., Kentville, N.S.
Whitaker, Wm., & Sons, Oakville, Ont.

SLICERS, Bread and Meat,

Computing Scale Co. of Canada, Ltd., Toronto.
Fletcher Mfg. Co., Ltd., Toronto, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

SLICERS Vegetable.

Thomas Bros., Ltd., St. Thomas, Ont.

SLIPPERS (Boudoir), in Felt and Leather,

Elmira Felt Co Ltd., Elmira, Ont.
Hurlbut Co., Ltd., The, Preston, Ont.
Ross, Henry, Indian Lorette, Que.

SLIPPERS, Knitted.

Crochet & Knitting Specialty Co., Toronto, Ont.

SLIPPERS, Leather. (See Boots and Shoes, Leather.)

SLOPS.—A common name for ready-made clothing.

SLOTTERS.

Bertram, John & Sons, Ltd., Dundas, Ont.
Canada Machinery Corporation, Ltd., Galt, Ont.

SMELTERS, Gold, Silver, Platinum.

British Canadian Smelters, Ltd., Toronto, Ont.
Canada Refining & Smelting Co., Toronto, Ont.
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
Goldsmith Bros. Smelting & Refining Co., Ltd., Toronto, Ont.

SMOCKS. (See also Overalls.)

Carhartt, Hamilton, Mfr., Ltd., Toronto, Ont.
Creaser, J. F. & Co., Ltd., La Have, N.S.
Fregeau, S. T., Rock Island, Que.
Louiseville Shirt & Overall Co., Montreal, Que.
Monarch Overall Mfg. Co., Ltd., Winnipeg, Man.
Monarch Shirt Co., The, Rock Island, Que.
Montreal Shirt & Overall Co., Ltd., Montreal.
Peerless Overall Co., Dock Island, Que.
Peters, H. S., Welland, Ont.
Popular Shirt Co., Sorel, Que.
Premier Mfg. Co., Toronto, Ont.
Rock Island Overall Co., Rock Island, Que.
Snag Proof Overall Co., Beebe, Que.
Stobart, Sons & Co., Ltd., Winnipeg, Man.
St. Henri Overall Mfg. Co., Montreal, Que.
Stag Pant & Overall Co., Montreal, Que.
Union Overall Mfg. Co. of Canada, Montreal.
Unity Mfg. Co., The, Toronto, Ont.
Western Shirt & Overall Mfg. Co., Winnipeg, Man.
Windsor Overall Co., Ltd., Windsor, Ont.

SMOKE STACKS.

Bell, The Robt., Engine & Thresher Co., Ltd., Seaforth, Ont.
Brown Machine Co., Ltd., New Glasgow, N.S.
Bruce Agricultural Works, Teeswater, Ont.
Calgary Iron Works, Ltd., Calgary, Alta.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Corrugated Pipe Co., Ltd., Portage la Prairie, Man.
Corbet Foundry Co., Owen Sound, Ont.
Corrugated Pipe Co., Ltd., The, Stratford, Ont.
Farand & Delorme, Ltd., Montreal, Que.
Goldie & McCulloch Co., Ltd., The, Galt, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Inglis, The John, Co., Ltd., Toronto, Ont.
International Engineering Works, Ltd., Montreal, Que.
Jenckes Machine Co., Ltd., Shebrooke. Que.
Leonard, E., & Sons, London, Ont.
McKinnon, Holmes & Co., Ltd., Sherbrooke, Que.
Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.
McLennan Foundry & Machine Works, Ltd., Campbellton, N.B.
Napanee Iron Works, Napanee, Ont.
National Bridge Co. of Canada, Ltd., Montreal, Que.
Owen Sound Iron Works Co., Ltd., Owen Sound, Ont.
Riddell, John E., & Son, Hamilton, Ont.
Steel Trough & Machine Co., Ltd., The, Tweed, Ont.
Structural Steel Co., Ltd., Montreal, Que.
Sudbury Construction & Machinery Co., Ltd., Sudbury, Ont.
Thorold Iron Works, Ltd., Toronto, Ont.
Toronto Iron Works, Ltd., Toronto, Ont.

SMUT TREATERS.

Tudhope-Anderson Co., Ltd., Orillia, Ont.

SNAKE-ROOT. (See SENEGA ROOT and SERPENTARY ROOT).

SNAKE-WOOD. (See LETTER-WOOD).

SNAPPER.—A widely distributed fish in Australian waters, and an important market fish.

SNATHS, Scythe.

Canada Axe & Harvest Tool Mfg. Co., Ltd., Montreal, Que.
Dominion Snath Co., Waterville, Que.

SNEEZE-WOOD, one of the largest and most valuable trees in Cape Colony. The wood is of a yellowish colour, and grained somewhat like satinwood. It is used for cabinet-making and engineering purposes.

SNOW SHOES.

Chestnut Canoe Co., Ltd., Fredericton, N.B.
Holland, G. A., & Son Co., Montreal, Que.
Holt, Renfrew & Co., Quebec, Que.
Laliberte, J. B., Quebec, Que.
Ross, Henry, Indian Lorette, Que.
Ryan, The Robert, Co., Reg., Three Rivers, Que.
Smart-Woods, Ltd., Ottawa, Ont.

SNUFF. (See TOBACCO).

SNUFF.

Dussault Tobacco Factory Co., Ltd., Que.
Lemesurier, J., & Sons, Quebec, Que.
Rattray, J., & Co., Ltd., Montreal, Que.

SOAP.—Soaps are compounds formed by the action of alkalies on fats and fatty acids, and are distinguished as hard (soda) soaps and soft (potash) soaps. For hard soaps tallow, palm-oil, coconut oil, olive oil, and seed oils are used, and for soft soaps linseed oil, castor oil, and fish oils. Hard soaps are most used, and are cured, mottled, or yellow. Toilet soaps are made of good curd or yellow soap, from which all free alkali is removed, and rendered perfectly homogeneous by repeated rollings. White Castile soap made at Marseilles from olive oil is used in dressing silk. Lead, arsenic, &c., are mixed with soaps for medical and industrial purposes. Great Britain, France, and Germany are the chief exporting countries.

SOAP, Chip.

Beaver Soap Co., Ltd., Winnipeg Man.
Crescent Oil Co., The, Hamilton, Ont.
Darling & Brady, Montreal, Que.
Guelph Soap Co., Guelph, Ont.

SOAP, Coach and Car Cleaning.

Dominion Oil Co., Ltd., Hamilton, Ont.
Imperial Varnish & Color Co., Ltd., Toronto,
Metropolitan Oil Co., Toronto, Ont.
Sovereign Soaps & Chemicals, Ltd., Toronto.

SOAP, Harness.

Alpha Chemical Co., Ltd., The, Berlin, Ont.
Commercial Oil Co., Ltd., Hamilton, Ont.
Dominion Oil Co., Ltd., Hamilton, Ont.
Hackney Stock Food Co., Toronto, Ont.
International Stock Food Co., Ltd., Toronto.

SOAP, Laundry.

Albert Soaps, Ltd., Montreal, Que.
Barsalou, J., & Cie., Ltd., Montreal, Que.
British America Paint Co., The, Victoria, B.C.
Darling & Brady, Montreal, Que.
Dominion Oil Co., Ltd., Hamilton, Ont.
Fairbank, The N. K., Co., Ltd., Montreal, Que.
Guelph Soap Co., Guelph, Ont.
Lawrason, S. F., & Co., London, Ont.
Lever Bros., Ltd., Toronto, Ont.
McColl Bros. & Co., Toronto, Ont.
Metropolitan Oil Co., Toronto, Ont.
Morton, David & Sons, Ltd., Hamilton, Ont.
Pugsley, Dingman & Co., Ltd., Toronto, Ont.
Richards Pure Soap Co., Ltd., The, Woodstock, Ont.
Royal Crown Soaps, Ltd., The, Vancouver, B.C.
St. Croix Soap Mfg. Co., St. Stephen, N.B.
Taylor, John, & Co., Ltd., Toronto, Ont.
Young-Thomas Soap Co., Ltd., The, Regina, Sasks.

SOAP, Liquid.

Parker-Whyte, Ltd., Winnipeg, Man.
Sovereign Soaps & Chemicals, Ltd., Toronto.

SOAP, Medicinal.

British America Paint Co., The, Victoria, B.C.
Richards Pure Soap Co., Ltd., The, Woodstock, Ont.
Sovereign Soaps & Chemicals, Ltd., Toronto.
Wampole, Henry K., & Co., Ltd., Perth, Ont.
World's Dispensary Association, Bridgeburg, Ont.

SOAP, Potash, Textile and Tanners'.

Sovereign Soaps & Chemicals, Ltd., Toronto.

SOAP, Powder.

Asepto Soap Co., St. John, N.S.

SOAP, Scouring and Fulling.

Albert Soaps, Ltd., Montreal, Que.
Darling & Brady, Montreal, Que.
Dominion Oil Co., Ltd., Hamilton, Ont.
Guelph Soap Co., Guelph, Ont.
Lawrason, S. F., & Co., London, Ont.
McColl Bros. & Co., Toronto, Ont.
Metropolitan Oil Co., Toronto, Ont.
Morton, David & Sons, Ltd., Hamilton, Ont.
Richards Pure Soap Co., Ltd., The, Woodstock, Ont.
Royal Crown Soaps, Ltd., The, Vancouver, B.C.
Sovereign Soaps & Chemicals, Ltd., Toronto.
Taylor, John, & Co., Ltd., Toronto, Ont.
William Co., Ltd., Montreal, Que.
Zip Mfg. Co., Sutton, Que.

SOAP, Shaving.

Gillette Safety Razor Co. of Canada, Ltd., Montreal, Que.

SOAP, Soft Oil.

Beaver Soap Co., Ltd., Winnipeg Man.
Canadian Economic Lubricant Co., Ltd., Montreal, Que.
Canadian Oil Co.'s, Ltd., Toronto, Ont.
Commercial Oil Co., Ltd., Hamilton, Ont.
Crescent Oil Co., The, Hamilton, Ont.
Darling & Brady, Montreal, Que.
Imperial Varnish & Color Co., Ltd., Toronto,
McColl Bros. & Co., Toronto, Ont.
Metropolitan Oil Co., Toronto, Ont.
Ontario Lubricating Co., Ltd., Hamilton, Ont.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.
Sovereign Soaps & Chemicals, Ltd., Toronto.

SOAP, Toilet.

Albert Soaps, Ltd., Montreal, Que.
British America Paint Co., The, Victoria, B.C.
Cudahy Packing Co., Toronto, Ont.
Dominion Oil Co., Ltd., Hamilton, Ont.
Fairbank, N. K., Co., Ltd., Montreal, Que.
Young-Thomas Soap Co., Ltd., Regina, Sask.
Metropolitan Oil Co., Toronto, Ont.
Morton, David & Sons, Ltd., Hamilton, Ont.
Richards Pure Soap Co., Ltd., The, Woodstock, Ont.
Royal Crown Soaps, Ltd., The, Vancouver, B.C.
Sovereign Perfumes, Ltd., Toronto, Ont.
Sovereign Soaps & Chemicals, Ltd., Toronto,
Taylor, John, & Co., Ltd., Toronto, Ont.
Young-Thomas Soap Co., Ltd., The, Regina,

SOAP BOXES, Celluloid.

Arlington Co. of Canada, Ltd., The, Toronto.

SOAP DISHES AND SPONGE HOLDERS.

Gendron Mfg. Co., Ltd., Toronto, Ont.
Kinzinger, Bruce & Co., Ltd., Niagara Falls, Ont.

SOAP DISHES, For Liquid Soap.

Parker-Whyte, Ltd., Winnipeg, Man.

SOAP TRAYS, Celluloid.

Arlington Co. of Canada, Ltd., The, Toronto.

SOAPBERRY.—The fruits of several trees contain a pulp which can be used as a substitute for soap.

SOAPSTONE. (See STEATITE, TALC).

SOAPSTONE.

Hamilton Facing Mill Co., Ltd., Hamilton, Ont.

SOAPWORT, the root of a plant which grows over all central and southern Europe and in Asia Minor, contains saponine, and is used for washing silk and wool. In Spain and North Africa the Egyptian or Levantine soapwort is used.

SODA.—Soda ash, or sodium carbonate, is manufactured in large quantities from common salt, which is first converted into sodium sulphate, or Glauber's salts. The ammonia-soda process is also commonly employed. Soda is used in soap and glass making, bleaching, &c. When crystallised it becomes washing soda. Bicarbonate of soda, a white powder, is chiefly used in medicine and in the production of effervescing drinks. Caustic soda, or sodium hydroxide, is employed in soap and paper-making and in the preparation of oxalic acid and certain coal-tar dyes. Large quantities of soda ash are manufactured in Great Britain, France, and Germany, and in dry regions carbonate of soda occurs native, especially in Oregon and California, and in Chile nitrate of soda is obtained. (See **NITRATE**).

SODA, Baking.

Canadian Spice Mill, The, Quebec, Que.
Church & Dwight, Ltd., Montreal, Que.
Ewing, S. H., & Sons, Montreal, Que.
Forbes & Nadeau, Montreal, Que.
Herron, Le Blanc, Ltd., Montreal, Que.
Lariviere & Frere, Montreal, Que.

SODA, Sal.

British America Paint Co., The, Victoria, B.C.
Cowan, John, & Co., Ltd., Montreal, Que.
Church & Dwight, Ltd., Montreal, Que.
Lawrason, S. F., & Co., London, Ont.
Victorine, Ltd., Montreal, Que.

SODA, Sulphate, Bi-Sulphate, Bi-Sulphite.

Nichols Chemical Co. of Canada, Ltd., The, Montreal, Que.

SODA WATER AND CREAM SODA.

Allan, Robert, Montreal, Que.
Bigelow & Hood, Truro, N.S.
Canadian Beverages Co., Ltd., Amherst, N.S.
Cummer & Son, Hamilton, Ont.
Shristin, J., & Co., Inc., Montreal, Que.
Edmonton Bottling Works, Edmonton, Alta.
Empire Brewing Co., Ltd., Brandon, Man.
Fernie Fort Steele Brewing Co., Ltd., The, Fernie, B.C.
Frisco Soda Water Co., Montreal.
Girourard, H., & Co., Montreal, Que.
Gurd, Chas., & Co., Ltd., Montreal, Que .
Ideal Soda Water Co., Montreal Que.
Kirkland, L. A., Toronto, Ont.
Mireault, Eugene, Ottawa, Ont.
Nelson Brewing Co., Ltd., Nelson, B.C.
Robillard, C., & Co., Montreal, Que.
Stuart Co., Inc., The, Montreal, Que.
Timmons, M., & Son, Quebec, Que.
Taylor & Pringle Co., Ltd., Owen Sound, Ont.
Tune, J., & Son, London, Ont.
Union Soda Water Mfg. Co., Ltd., Toronto, Ont.
Wilson, Chas., Ltd., Toronto, Ont.

SODA OIL, oil forced into skins in the tanneries and then washed out with soda. It is again used in dressing leather.

SODA WATER. (See **MINERAL WATERS**).

SODIUM CHLORIDE, Chemically Pure.

Canadian Alkali Co., Ltd., The, Windsor, Ont.

SOHAGA.—Hindi name for tincal.

SOLAZZI.—Licorice juice in sticks, exported from Italy.

SOLDER, Jewellers', Dentists', and Brazing.

Canadian Seamless Wire Co., Ltd., Toronto, Ont.
Lees, Geo., H., & Co., Ltd., Hamilton, Ont.
Wilkinson, J. E., Co., Ltd. Toronto, Ont.

SOLDER, Metal (Wire, Cable, Bar or Strip.)

Canada Metal Co., Ltd., Toronto, Ont.
Cuthbert M. R., & Co., Montreal, Que.
Frankel Bros., Toronto, Ont.
Hoyt Metal Co., The, Toronto, Ont.
Lumen Bearing Co., West Toronto, Ont.
Magnolia Metal Company, Montreal, Que.
Robertson, Thos. & Co., Ltd., Montreal, Que.
Robertson, The James, Co., Ltd., Montreal, Que. and Toronto, Ont.
Spooner, Alono W., Ltd., Port Hope, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto. Ont.
Tallman Brass & Lead, Ltd., Toronto, Ont.
United Brass & Lead, Ltd., Toronto, Ont.

SOLDERING IRONS AND COPPERS.

Brown, Boggs Co., Ltd., Hamilton, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.

SOLDERING IRONS, Electric.

Canadian Westinghouse Co., Ltd., Hamilton, Ont.

SOLES, a delicate flat fish, which is caught in largest numbers off the coasts of England, especially in the North Sea, and along the west coast of Europe. The lemon sole also is caught off the coasts of the British Isles, and the dab and lemon dab species of flounder. Small soles are called slips.

SOLES AND HEELS, Boot and Shoe. See Heels and Heel Stock, and Leather, Sole.)

SOLES and HEELS, Rubber.. (See Heels and Soles, Rubber.)

SOLES, Lamb's Wool.

Howe, A. T., & Son, Toronto, Ont.
Packard, L. H., & Co., Ltd., Montreal, Que.

SORREL, salts of binoxalate of potash, obtained from the wood-sorrel and from several species of the true sorrel (Rumex). It is prepared chiefly in Germany and Switzerland, and is used in calico-printing, in dyeing wool and silk, in removing stains and bleaching straw. Salt of lemons is another name for it. (See also **OXALIC ACID**).

SORTERS, Potato.

Aspinwall Mfg. Company, Guelph, Ont.
Canadian Potato Machinery Co., Ltd., The, Galt, Ont.
Moody, The, Matthew, & Sons Co., Terrebonne, Que.

SOUARI NUTS, the edible nuts of trees of Guiana and Brazil. They yield a bland oil, and their woood is hard and useful for shipbuilding.

SOUPS, Preserved and Canned.

British Canadian Canners, Ltd., Hamilton, Ont.
Clark, W., Montreal, Que.
Eastern Canning Co., The, St. George, N.B.
Heinz, H. J., Co., Leamington, Ont.
Mackay, The John, Co., Ltd., Bowmanville, Ont.

SOUPSOP. (See CUSTARD APPLE).

SOUVENIR GOODS.

Caron Bros., Montreal, Que.
Ellis, P. W., & Co., Ltd., Toronto, Ont.
Lees, Geo. H., & Co., Hamilton, Ont.
Roden Bros., Ltd., Toronto, Ont.
Young Bros., Ltd., Toronto, Ont.
Zock, J. J., & Co., Ltd., Toronto, Ont.

SOWA.—Indian name for caraway seeds.

SOY, a thick piquant sauce made from the Soya bean. Soy is made by mixing the beans with an equal quantity of wheat or barley, and allowing the mixture to ferment. It is the foundation of numerous sauces made in Europe and America.

SPADES.

Canadian Shovel & Tool Co., Ltd., The, Hamilton, Ont.
Jones, D. F., Mfg. Co., of Gananoque, Ltd., Gananoque, Ont.
Lundy Shovel & Tool Co., Ltd., Petreboro,' Ont.
Wolfe, Geo., & Sons, Ltd., Montreal, Que.

SPANIARD'S BEARD, or Beard Moss, a fibre which grows in the warmer parts of America, especially Guiana. It is an excellent substitute for horse-hair in stuffing mattresses, &c.

SPANISH CEDAR is the most expensive wood in Canada except ebony. The material is all imported from Mexico and is used chiefly in veneer for cigar boxes, &c. **(See WOOD).**

SPANISH FLY. (See CANTHARIDES).

SPANISH STRIPES.—A woollen fabric of which a large number of pieces are imported into China.

SPARK PLUGS.

Canadian Carbon Co., Ltd., Toronto, Ont.
Tallman Brass & Metal Co., Hamilton, Ont.

SPARS, Ship and Boat.

British Columbia Mills, Timber & Trading Co., Vancouver, B.C.
Victoria Lumber & Mfg. Co., Chemainus, B.C.
White, Chas., T. & Son, Ltd., Sussex, N.B.

SPECTACLES.

Consolidated Optical Co., Ltd., Toronto, Ont.
Dominion Optical Mfg. Co., Ltd., Montreal, Que.

SPELT. (See WHEAT).

SPELTER. (See ZINC).

SPELTER.

Canada Metal Co., Ltd., Toronto, Ont.

SPERMACETI, a waxy matter found mixed with oil in the head and in certain parts of the body of the cachalot or sperm whale. It enters into the composition of ointments, especially cold cream, pomades, and candles.

SPERM OIL.—The most valuable oil of the sperm whale is found in a large cavity behind the cranium, mixed with spermaceti, and with it constituting the "head matter," but at the refineries the body oil is mixed with it. Sperm oil is the best lubricant for light rapidly running machinery. Much of the sperm oil of commerce is mixed with hydrocarbon and other oils. **(See also WHALES and OILS).**

SPICES, Whole and Ground.

Barbour, G. E., Co., Ltd., St. John, N.B.
Beaver Mfg. Co., Ltd., Galt, Ont.
Blue Ribbon, Ltd., Winnipeg, Man.
Brantford Coffee & Spice Co., Brantford, Ont.
Braid, Wm., & Co., Vancouver, B.C.
Canadian Spice Mill, The, Quebec, Que.
Cochrane, C. H., & Co., Ottawa, Ont.
Codville Co., Ltd., The, Winnipeg, Man.
Dalton Bros., Toronto, Ont.
Dearborn & Co., Ltd., St. John, N.B.
Dominion Coffee & Spice Mills Co., Montreal, Que.
Dunn, G. S., & Co., Hamilton, Ont.
Dyson Company, The, Winnipeg, Man.
Eby-Blain, Ltd., Toronto, Ont.
Empress Mfg. Co., Ltd., Vancouver, B.C.
Ewing, S. H., & Sons, Montreal, Que.
Georgeson & Co., Ltd., Calgary, Alta.
Gorman, Eckert & Co., Ltd., London, Ont.
Gun-Munro Spice Mills Co., Montreal, Que.
Herron, Le Blanc, Ltd., Montreal, Que.
Imperial Cocoa & Spice Co., Ltd., Hamilton, Ont.
Jersey Cream Factories, Ltd., Hamilton, Ont.
Larivière & Frere, Montreal, Que.
Lowes, The J. M. Co., Ltd., Toronto, Ont.
Litster Pure Food Co., Ltd., Toronto, Ont.
Lyman's, Ltd., Montreal, Que.
McCready, T., & Sons, Ltd., St. John, N.B.
McLarens, Ltd., Hamilton, Ont.
Mott, John P., & Co., Halifax, N.S.
National Drug & Chemical Co. of Canada, Ltd., Montreal, Que.
National Coffee & Spice Co., Montreal, Que.
Pioneer Coffee & Spice Mills, Ltd., Victoria, B.C.
Puddington, Wetmore, Morrison, Ltd., St. John, N.B.
Pure Gold Mfg. Co., Ltd., Toronto, Ont.
Schwartz, W. H., & Sons, Halifax, N.S.
Richardson Mfg. Co., Hamilton, Ont.
Tuxedo Coffee & Spice Co., Ltd., Calgary, Alta.
White Swan Spices & Cereals, Ltd., Toronto.
White Star Mfg. Co., The, Winnipeg, Man.
Young-Winfield, Ltd., Hamilton, Ont.

SPICEWOOD, or Benamin tree. A shrub of North America. The bark and berries yield a stimulant and tonic medicine.

SPIDERS, Steel (Cooking).

Amherst Foundry Co., Ltd., Amherst, N.S.
McClary Mfg. Co., London, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.

SPIEGELEISEN, iron containing a large proportion of carbon and manganese, used in the manufacture of Bessemer steel.

SPIKENARD, or Nard, a perfume derived from a plant of northern India. The roots are now more frequently used as a medicine.

SPIKE-TOOTH HARROWS.

Bailey-Underwood Co., Ltd., New Glasgow, N.S.
Belanger, A., Montmagny, Que.
Bruce Agricultural Works, Teeswater, Ont.
Dore, J. B., & Fils, Montreal, Que.
Fleury's, J., Sons, Aurora, Ont.
Hamilton, Peterf, Co., Ltd., Peterborough, Ont.
International Harvester Co. of Canada, Ltd., Hamilton, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Moody, The Matthew, & Sons Co., Terrebonne, Que.
Noxon Co., Ltd., The, Ingersoll, Ont.
Oliver Chilled Plow Works of Canada, Ltd., Hamilton, Ont.
Tolton Bros., Ltd., Guelph, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.

SPIKE RAILWAY AND STRIP STEEL.

Canadian Warren Axe & Tool Co., Ltd., St. Catharines, Ont.
Dominion Iron & Steel Co., Ltd., Sydney, N.S.
Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Lake Superior Corporation, The, Sault Ste. Marie, Ont.
Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Peck Rolling Mills, Ltd., The, Montreal, Que.
Portland Rolling Mills, Ltd., St. John, N.B.
Steel Co. of Canada, Ltd., Montreal, Que.
Starr Mfg. Co., Ltd., Dartmouth, N.S.

SPILES.

Canadian Cork Cutting Co., Montreal, Que.

SPIRITS.—Spirits are distilled from grape juice, malt, grains, fruit, beetroot, potatoes, and molasses. Many of those used as beverages are described separately, such as brandy, whiskey, gin, rum, and liqueurs. A considerable quantity is also used for various industrial purposes. (See **METHYLATED SPIRITS**). The production of pure alcohol throughout the world is probably 500 to 650 million gallons. The largest producer is Germany, which manufactures about 84 million gallons (pure alcohol) annually. Russia produces fully as much, while the United States and Austria-Hungary follow.

Distillation is the art of separating alcoholic spirits from fermented liquors. Alcohol is more volatile than water, and accordingly may be driven off from water by a slow heat. The gas is conveyed by a pipe to a small chamber or "still" and there condensed back again into liquor, which will contain more or less water, according to the efficiency of the machinery used. Liquor is "proof" that is, standard, when it contains 49.24 parts of pure alcohol, and 50.76 parts of water. Distilled spirits are "overproof o. p." or "underproof u. p." according as it contains more or less alcohol.

Alcohol is distilled principally from wine in France, and from the potato in Germany. Rum is distilled from molasses in West India Islands, and elsewhere where the sugar cane is grown. Whiskey and gin are distilled from grains, principally barley. Arack is distilled from "toddy," or the fermented juice of certain palms. Sake is distilled from rice.

The importations of spirits and wine into Canada amount to over $7,000,000. The domestic product is obtained from twenty-four establishments, which produce about $12,500,000 worth of liquors.

SPOKES.

Finlay, J., & Sons Co., Norwood, Ont.
Heard, John, & Co., St. Thomas, Ont.
Hore, F. W., & Son, Ltd., Hamilton, Ont.
Loughead Bros., Ltd., Sarnia, Ont.
McVean, O. & W., Dresden, Ont.
McKillop, A., & Sons, Ltd., West Lorne, Ont.
Victoria Wheel Works, Galt, Ont.
Windsor Turned Goods Co., Ltd., Windsor, Ont.

SPOKES, Auto.

Ackland, D., & Son, Ltd., Winnipeg, Man.

SPONGES.—Sponges are gathered chiefly in the Mediterranean and off the Bahamas and Florida. The soft white Syrian sponges are the best, and some of the Greek sponges fetch a high price. The West Indian sponges are large and coarse.

SPOOL WOOD AND BOBBIN WOOD.

Richardson, Jas., Co., Ltd., Matane, Que.
Samson, Joseph, Quebec Que.
Thompson, The W. R., Co., Teeswater, Ont.
Thompson & Co., Sherbrooke, Que.

SPOOLS, Wood.

Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
Jackson, Jos., St. Charles de Mandeville, Que.
Lachute Shuttle Co., Ltd., Lachute Mills, Que.
Lyster Wood Box Turning & Enameling Co., Ltd., Lyster, Que.

SPOONS.. (See Hollow-Ware.)

SPOONS, Post Hole.

Jones, D. F. Mfg. Co., of Gananoque, Ltd., Gananoque, Ont.

SPORTING GOODS.

Bentley & Anderson, Niagara Falls, Ont.
Reach, The A. J. Co., Toronto, Ont.
Western King Mfg. Co., Ltd., Winnipeg, Man.
Winnett & Wellinger, Ltd., Toronto, Ont.
Wilson, Harold A., Co., Ltd., Toronto, Ont.

SPOUTS, Sap.

Grimm Mfg. Co., Ltd., The, Montreal, Que.
Small Bros., Dunham, Que.
Smart, The James Mfg. Co., Ltd., The, Brockville, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.

SPRAT, a small fish of the herring family. Being cheap, they are largely consumed by the poorer classes. They are, however, delicate fish and are often preserved in tins in France, Norway, and Russia, and are sold as sardines, Norwegian and Russian anchovies.

SPRAYERS, Hand and Power.

Aspinwall Mfg. Co., Guelph, Ont.
Bateman, Wilkinson & Co., Ltd., Toronto, Ont.
Canadian Potato Machinery Co., Ltd., The, Galt, Ont.
Collins Mfg. Company, Toronto, Ont.
Goold, Shapley & Muir Co., Ltd., Brantford, Ont.
Eureka Planter Co., Ltd., The, Woodstock, Ont.
National Machine Co., Brighton, Ont.
Niagara Brand Spray Co., Ltd., Burlington, Ont.
Petrie Mfg. Co., Ltd., Hamilton, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Spramotor Company, London, Ont.
Wright. E. T. & Company, Hamitlon, Ont.

SPRAYING MATERIAL, Tree and Plant.

British America Paint Co., The, Victoria, B.C.
Niagara Brand Spray Co., Ltd., The, Burlington, Ont.

SPRING-TOOTH HARROWS.

Bailey-Underwood Co., Ltd., New Glasgow, N.S.
Belanger, A., Montmagny, Que.
Bruce Agricultural Works, The, Teeswater, Ont.
Cossitt Co., Ltd., The, Brockville, Ont.
Frost & Wood Co., Ltd., The, Smith's Falls, Ont.
Hamilton, Peter, Co., Ltd., Peterborough, Ont.
International Harvester Co. of Canada, Ltd., Hamilton, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Noxon Co., Ltd., The, Ingersoll, Ont.

SPRINGS, Bed and Woven Wire.

Alaska Bedding Co., Ltd., Winnipeg, Man.
Alaska Feather & Down Co., Ltd., Montreal, Que.
British Columbia Bedding & Upholstering Co., Ltd., Vancouver, B.C.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Canada Mattress Mfg. Co., Victoriaville, Que.
Colleran Patent Spring Mattress Co., The, Toronto, Ont.
Cornelius Brothers, Winnipeg, Man.
Dominion Bedding Co., Belleville, Ont.
Edmonton Tent & Mattress Co., Ltd., Edmonton, Alta.
Frame & Hay Fence Co., Ltd., The, Stratford, Ont.
Gale, Geo. & Sons, Winnipeg, Man., and Waterford, Ont.
Ham & Nott Co., Ltd., The Brantford Ont.
Ideal Bedding Co. Ltd. Toronto Ont.
Ives Modern Bedstead Co. Ltd. Cornwall Ont.
Mason, F. W., & Sons, St. Andrew's, N.B.
Munro Steel & Wire Works, Ltd., Winnipeg, Man.
Munro Wire Works, Ltd., New Glasgow, N.S.
Restmore Mfg. Co., Ltd., Vancouver, B.C.
Standard Bedding Co., Toronto, Ont.
Standard Bedstead Co., Ltd., The, Victoriaville, Que.
Stamco, Ltd., Saskatoon, Sask.
Steel Furnishing Co., The, New Glasgow, N.S.
Thompson Mattress Co., The, Montreal, Que.
Whitworth & Restall, Toronto, Ont.
Weisglass, S., Ltd., Montreal, Que.

SPRINGS, Bed (Steel.)

Anchor Bedding Co., Ltd., Toronto, Ont.
Gold Medal Furniture Mfg. Co., Ltd., Toronto, Ont.
Munro Steel & Wire Works, Ltd., Winnipeg, Man.

SPRINGS, Box.

Canadian Feather & Mattress Co., Ltd., Toronto, Ont.

SPRINGS, Carriage, Automobile, Motor Truck, Buggy and Wagon.

Campbell Bros., St. John, N.B.
Coghlin, B. J., Co., Ltd., Montreal, Que.
Dowsley Spring & Axle Co., Ltd., Chatham, Ont.
Fowler, Josiah, Co., Ltd., St. John, N.B.
Gananoque Spring & Axle Co., Ltd., Gananoque, Ont.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.
Latta, D. G., Ltd., Edmonton, Alta.

SPRINGS, Coiled and Elliptical.

Canadian Steel Foundries, Ltd., Montreal, Que.
Coghlin, B. J., Co., Ltd., Montreal, Que.
Cornelius Bros., Winnipeg, Man.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

SPRINGS, Flat Steel Specialties.

St. Lawrence Steel & Wire Co., Ltd., Gananoque, Ont.

SPRINGS, Locomotive and Railway.

Coghlin, B. J., & Co., Ltd., Montreal, Que.
Fowler, Josiah, Co., Ltd., The, St. John, N.B.

SPRINGS, Rubber.

Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
Gutta Percha & Rubber, Ltd., Toronto, Ont.

SPRINGS, Upholstered.

Alaska Feather & Down Co., Ltd., Montreal, Que.
Canadian Feather & Mattress Co., Ltd., Toronto.
Gale, Geo., W. & Sons, Winipeg, Man.
Mason, F. W., & Son, St. Andrew's, N.B.

SPRING, Upholstering.

Gale, Geo., & Sons, Waterville, Que.
Greening, The B., Wire Co., Ltd., Hamilton, Ont.
National Spring & Wire Co., Windsor, Ont.
Turner, John, & Son, Toronto, Ont.

SPRINGS, Wagon Bolster.

Adams Wagon Co., Ltd., Brantford, Ont.
Dowsley Spring & Axle Co., Ltd., Chatham, Ont.

SPRINGS, Wire.

Hutchings & Company, St. John, N. B.
St. Lawrence Steel & Wire Co., Ltd., Gananoque, Ont.

SPRINGS, Wringer.

Bailey, Underwood Co., Ltd., New Glasgow, N.S.
Coghlin, B. J., Co., Ltd., Montreal, Que.

SPRINKLERS, Automatic Fire.

Bennett & Wright Co., Ltd., Toronto, Ont.
General Fire Equipment Co., Ltd., Toronto, Ont.
General Fire Extinguisher Co., Montreal, Que.
McGuire, W. J., Ltd., Toronto, Ont.
Purdy-Mansell, Ltd., Toronto, Ont.
Rockwood Sprinkler Co. of Canada, Ltd., The, Montreal, Que.
Vogel Co. of Canada, Ltd., Montreal, Que.

SPRINKLERS, Lawn.

Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.

SPRINKLERS, Street.

SPRINKLERS, Street.

General Car & Machinery Works, Montmagny, Que.
Ottawa Car Co., Ltd., Ottawa, Ont.
Smith Bros., Toronto, Ont.
Steel Trough & Machine Co., Ltd., The, Tweed, Ont.

SPRUCE.—White spruce forms the greater part of the spruce used in Canadian industries. The other spruces are red spruce, black spruce and sitka spruce.

White spruce grows in Canada from Newfoundland to the Yukon. It is Canada's main pulp spruce on account of its long, tough colorless fibres. It is gradually taking the place of white pine for dimension timber, lumber and boxes. Compared with white pine, spruce is less durable, harder to work and not quite so strong, but it is tougher, has a finer grain, is lighter in color and being non-resinous, is a finer grain, is lighter in color and being of tasteless and odorless, and therefore more valuable for boxes, barrels and other packing cases used for foodstuffs. Red spruce comes largely from the Maritime Provinces and is valued on account of the fine texture. Black spruce is usually a small tree and its wood is less sought after. Sitka spruce is cut in British Columbia, and brought to other parts of Canada for a few special uses, such as piano and organ sounding boards, and for flag poles, masts, and spars. The spruce and pine make up two-fifths of the total woods used in Canada. The supply of spruce, while being rapidly depleted, is still very considerable. (See **WOOD**).

SPRUCE BEER. (See **BEER**).

SQUARES, T. (See Tee Squares.)

SQUEEZERS, Lemon.

Fletcher Mfg. Co., Ltd., Toronto, Ont.
Hamilton Brass Mfg. Co., Ltd., Hamilton, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

SQUILLS, the bulb of a plant which grows on the sandy shores of the Mediterranean. The plant is gathered chiefly in Malta, Calabria, and Spain. In Greece, spirit is extracted from it.

SQUIRREL.—The common squirrel, of which there are many varieties, is hunted for its skin, especially in Russia and Siberia, but the number of skins obtained has diminished. At Irbit, in 1906, 2,500,000 skins were sold. The American squirrel yields a grey fur, and the skins of the chipmunk or ground-squirrel of North America are shipped to China.

STABLE FIXTURES.

Beatty Bros., Ltd., Fergus, Ont.
British American Hardware Mfg. Co., Toronto.
Chatham Malleable & Steel Mfg. Co., Chatham, Ont.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Lymburner, Ltd., Montreal, Que.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Richardson, C., & Co., St. Mary's, Ont.
Steel Trough & Machine Co., Ltd., The, Tweed, Ont.
Smart, The James, Mfg. Co., Ltd., Brockville, Ont.
Tisdale Iron Stable Fittings Co., Ltd., Toronto, Ont.
Warden King, Ltd., Montreal, Que.

STACKERS, Wind.

Bell, Robt., The, Engine & Thresher Co., Ltd., Seaforth, Ont.
Canadian Rumely Co., Ltd., Toronto, Ont.
Dain Mfg. Co., Ltd., Welland, Ont.
Goodison, The John Thresher Co., Ltd., Sarnia, Ont.
Macdonald Thresher Co., Ltd., The, Stratford, Ont.
New Hamburg Mfg. Co., Ltd., New Hamburg, Ont.
Smith Stacker & Feeder Co., Ltd., Hamilton, Ont.
Watt, R., Machine Works Co., Ridgetown, Ont.
Waterloo Mfg. Co., Ltd., The, Waterloo, Ont.
White & Sons Co., Ltd., The George, London, Ont.

STAINS, Floor.

Ramsay, A., & Son, Co., Montreal, Que.
Stephens, G. F., & Co., Ltd. Winnipeg, Man.

STAINS Shingle, Creosote.

British Columbia Refining Co., Ltd., Vancouver, B.C.
Paterson Mfg. Co., Ltd., Montreal, Que., and Toronto, Ont.
Sidney Rubber Roofing Co., Sidney, B.C.

STAINS, Wood and Shingle.

Berry Brothers, Walkerville, Ont.
Brandram-Henderson, Ltd., Halifax, N.S., and Montreal, Que.
Canada Paint Co., Ltd., The, Winnipeg, Man., and Montreal, Que.
Carbon Oil Works, Ltd., Winnipeg, Man.
Imperial Varnish & Color Co., Ltd., Toronto.
International Varnish Co., Ltd., Toronto, Ont.
Jamieson, R. C., & Co., Ltd., Montreal, Que.
Langmuir, James, & Co., Ltd., Toronto Ont.
Mandor Bros., Montreal, Que.
Manton Bros. Toronto, Ont.
Moore, Benjamin, & Co., Ltd., Toronto, Ont.
Muirhead, A., Co., Ltd., Toronto, Ont.
Ottawa Paint Works, The, Ottawa, Ont.
Pinchin, Johnson & Co., Canada, Ltd., Toronto, Ont.
Ramsay, A., & Son, Co., Montreal, Que.
Scarfe & Co., Brantford, Ont.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
Stephens, G. F., & Co., Ltd., Winnipeg, Man.

STAIR TREADS, Composition.

Canadian Pyrofugant Flooring Co., Ltd., Berlin, Ont.
Canadian Flexolite & Construction, Ltd., Winnipeg, Man.
Hilton, H., & Sons, Winnipeg, Man.

STAIR TREADS, Marble and Slate.

Canada Glass Mantels & Tiles, Ltd., Toronto, Ont.
Marble & Tile Co., The, of Canada, Ltd., Winnipeg, Man.
Meadows, Geo. B., Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Smith Marble & Construction Co., Ltd., Montreal, Que.

STAIR TREADS, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
Gutta Percha & Rubber Ltd., Toronto, Ont.
Walpole Rubber Co., Ltd., Montreal, Que.

STAIRS, Iron.

Alberta Ornamental Iron Co., Ltd., Redcliffe, Alta.
British Columbia Iron Wire Fence Co., Vancouver, B.C.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Ornamental Iron Co., Toronto, Ont.
Dennis Iron & Wire Works Co., Ltd., London, Ont.
Hutchison & Sticht, Montreal, Que.
McGregor & McIntyre, Ltd., Toronto, Ont.
Meadows, Geo. B., Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
Sarnia Bridge Co., Ltd., Sarnia, Ont.
Shipway Iron Bell & Wire Mfg. Co., Ltd., Toronto, Ont.
Westminster Iron Works, New Westminster, B.C.
Watson, John, & Son, of Montreal, Ltd., Montreal, Que.
Winnipeg Wire & Iron Works, Winnipeg, Man.

STAIRS, Wood. (See also Planing Mills.)

Allen, A. W., & Son, Middleton, N.S.
Balcom, H. Z., Aylmer, Ont.
Chappell Bros., & Co., Ltd., Sydney, N.S.
Davidson, Jas., Ottawa, Ont.
Hancock, T. H., Toronto, Ont.
Lea, Paul, Co., Ltd., Moncton N.B.
Leduc & Fortin, Beauharnois, Que.
Matthews Sash & Door Co., Fort William, Ont.
Nagle & Mills, Ingersoll, Ont.
Ottawa Stair Works, Ottawa, Ont.

STAMPS, Metal and Rubber.

Barnard, H., Co., Ltd., Hamilton, Ont.
Hamilton Stamp & Stencil Works, Ltd., Hamilton, Ont.
London Rubber Stamps, Halifax, N.S.
Montreal Stencil Works, Montreal, Que.
Moore, T. J., & Co., Quebec, Que.
Patterson & Heward, Toronto, Ont.
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
Superior Mfg. Co., Ltd., Toronto, Ont.
Thompson Stamp & Stencil Works, Ltd., Vancouver, B.C.
Toronto Stamp & Stencil Works, Ltd., Toron-
Walker & Campbell, Montreal, Que.

STAMPS, Postage and Revenue.

American Bank Note Co., Ottawa, Ont.
British American Bank Note Co., Ltd., Montreal.

STAMPS, Steel.

Armstrong, W. D., Montreal, Que.
Barnard, H., Co., Montreal, Que.
Hamilton Stamp & Stencil Works, Ltd., Hamilton, Ont.
London Rubber Stamp Co., Halifax, N.S.
Montreal Stencil Works, Montreal, Que.
Patterson & Heward, Toronto, Ont.
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
Scully, Wm., Montreal, Que.
Toronto Stamp & Stencil Co., Ltd., Toronto.
Superior Mfg. Co., Ltd., Toronto, Ont.

STANCHIONS AND STALLS, Cattle. (See also Stabel Fixtures.)

Beatty Bros., Ltd., Fergus, Ont.
Canadian Potato Machinery Co., Ltd., The, Galt, Ont.
Chatham Malleable & Steel Mfg. Co., Chatham, Ont.
Dillon, R., & Son, Oshawa, Ont.,
Lymburner, Ltd., Montreal, Que.
Louden Machinery Co., Guelph, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
National Mfg. Co., Ltd., Ottawa, Ont.
Tisdale Iron Stable Fittings Co., Ltd., Toronto.

STANDARDS, Cast-Iron, Street Lighting.

Alberta Ornamental Iron Co., Ltd., Redcliff, Alta.
Brandon Machine & Implement Works, Brandon, Man.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Reid & Brown, Toronto, Ont.
Standard Foundry & Machine Co., Ltd., Longueuil, Que.

STANDARDS, Steel.

Structural Steel Co., Ltd., Montreal, Que.

STAND PIPES, for Waterworks and Railways. (See also Tanks, Steel.)

Bruce Agricultural Works, The, Teeswater, Ont.
Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
Farand & Delorme, Ltd., Montreal, Que.
General Fire Equipment Co., Ltd., Toronto. Ont.
Inglis Co., The John, Ltd., Toronto, Ont.
Hunter Bridge & Boiler Co., Ltd., Kincardine, Ont.
MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.
Toronto Iron Works Co., Ltd., Toronto, Ont.

STAND AND PEDESTAL, Jardiniere.

Chesley Furniture Co., Ltd., Chesley, Ont.
McLagan, The George, Furniture Co., Ltd., Stratford, Ont.
Meaford Mfg. Co., Ltd., Meaford, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Snyder Bros. Upholstering Co., Ltd., Waterloo, Ont.

STAPLES, Fence.

Canadian Steel & Wire Co., Ltd., Hamilton,
Greening, The B., Wire Co., Ltd., Hamilton, Ont.
Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Laidlaw Bale-Tie Co., Ltd., Hamilton, Ont.
Lamb, H. R., Fence Co., Ltd., London, Ont.
New Brunswick Wire Fence Co., Ltd., Moncton, N.B.
Page Wire Fence Co., Ltd., Walkerville, Ont.
Pittsburg Perfect Fence Co., Ltd., Hamilton, Ont.
Sanrnia Fence Co., Ltd., Sarnia, Ont.
Steel Co. of Canada, Ltd., Hamilton, Ont.
Western Wire & Nail Co., Ltd., London, Ont.

STAPLES, Nutted.

Steel Co. of Canada, Ltd., Montreal, Que.

STAPLES, Wire (Bright, Coppered and Galvanized.)

Canadian Steel & Wire Co., Ltd., Hamilton, Ont.
Canada Steel Goods Co., Ltd., Hamilton, Ont.
Greening, The B., Wire Co., Ltd., Hamilton, Ont.
Graham Nail Works, The, Toronto, Ont.
Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Laidlaw Bale-Tie Co., Ltd., Hamilton, Ont.
Morrison Steel & Wire Co., Ltd., Vancouver, B.C.
Pender, James, & Co., Ltd., St. John, N.B.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.
Western Wire & Nail Co., Ltd., London, Ont.

STAPLES, Wrought.

Cowan & Britton, Ltd., Gananoque, Ont.
Smart, The James Mfg. Co., Ltd., Brockville, Ont.

STAR ANISEED. (See ANISEED).

STARCH.—This substance is made from corn, potatoes, wheat, rice, sago, and other vegetable products, but chiefly from corn. In Germany, varieties of potato exceptionally rich in starch are grown for the manufacture. Besides its use in the laundry, starch is extensively employed in dressing textile fabrics, in paper manufacture, and in the preparation of dextrine or British gum. Corn-flour, arrowroot, tapioca, and East Indian arrowroot, are starches prepared for food.

STARCH, Corn.

Canada Starch Co., Ltd., The, Brantford, Ont. and Montreal, Que.
Forbes & Nadeau, Montreal, Que.
Fort William Starch Co., Ltd., Fort William, Ont.
Ocean Mills, Montreal, Que.
Quebec Preserving Co., Quebec, Que .
St. Lawrence Starch Co., Ltd., Port Credit, Ont.
St. Peter's Starch Co., Ltd., St. Peter's, P.E.I.

STARCH POTATO, P.E.I.

Canada Dexterine Co., Bridgetown.
Canadian Denatured Alcohol Co., East Baltic.
Full, Geo. E., Hunter River.
Cox, R. N., Morell Station.
McEwin, H. D., Morell Station.
Morell Starch Co., Morell Station.
Prowse & Sons, Murray Harbor.
St. Peter's Starch Co., Ltd., St. Peter's, P.E.I.

STATUARY. (See also Monuments.)

Hamilton Granite Works, Hamilton, Ont.
McIntosh Granite Co., Ltd., Toronto, Ont.

STATUARY, Metal.

Metallic Roofing Co. of Canada, Ltd., The, Toronto, Ont.
Pedlar People, Ltd., The, Oshawa, Ont.

STAVES, lengths of wood for making the sides of casks, are exported chiefly from Austria-Hungary, the Baltic Sea, and the United States. The best are made of oak.

STAVES, Etc.

Ainslie, J. S., & Bro., Comber, Ont.
Alberta Box Co., Ltd., Calgary, Alta.
Cargill, H., & Son Cargill Ont.
Conger Lumber Co., Ltd., Toronto, Ont.
Drader, Wm. M., Chatham, N.B.
Hilward Bros., St. John. N.B.
Loggie, W. S. Co., Ltd., Chatham, Ont.
Manitoba Cooperage Co., Ltd., Winnipeg, Man.

Marmora Cooperage Co., Marmora, Ont.
McLearn Company, Ltd., Liverpool, N.S.
Miller, Charles, St. John, N.B.
Randolph & Baker, Ltd., Randolph, N.B.
Sayre, F. E., & Co., Ltd., St. John, N.B.
Stetson, Cutler & Co., St. John, N.B.
utherland, Innes Co., Ltd., The, Chatham, Ont.
Thompson, The W. R. Co., Teeswater, Ont.
Trenton Cooperage Mills, Ltd., Trenton, Ont.
Wallaceburg Cooperage Co., Ltd., Wallaceburg, Ont.
Windsor Plaster Co., Ltd., Windsor, N.S.
Zimmerman Bros., Tavistock, Ont.

STEAMERS, Freight and Passenger.

Atchison & Co., Cornwall, Ont.
British Columbia Marine Railways Co., Ltd., Victoria, B.C.
Collingwood Shipbuilding Co., Ltd., Collingwood, Ont.
Doty Marine Engine & Boiler Co., Ltd., Goderich, Ont.
Fleming, James, St. John, N.B.
Gidley Boat Co., Ltd., Penteanguishene, Ont.
Kingston Shipbuilding Co., Ltd., Kingston, Ont.
Maritime Foundry & Machine Works, Ltd., Chatham, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Ned Burrell-Johnson Iron Co., Ltd., The, Yarmouth, N.S.
Peterborough Canoe Co., Ltd., Peterborough, Ont.
Polson Iron Works, Ltd., Toronto, Ont.
Rathbun Company, The, Deseronto, Ont.
Sorel Iron Works, Ltd., Sorel, Que.
Vancouver Ship Yard, Ltd., Vancouver, B.C.
Wallace Shipyards, Ltd., Vancouver, B.C.
Western Dry Dock & Shipbuilding Co., Ltd., Port Arthur, Ont.
White, W. C., Boiler Works, Montreal, Que.

STEARINE, the chief constituent of the more solid fats, used in candle and soap-making. (See also **TALLOW**).

STEARINE.

Harris Abattoir Co., Ltd., The, Toronto, Ont.

STEATITE. (See **TALC**).

STEEL. (See **IRON and STEEL**).

STEEL, Angle.

Canada Steel Co., Ltd., Hamilton, Ont.
Hamitlon Bridge Works Co., Ltd., Hamilton, Ont.
Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Steel Co. of Canada, Ltd., Hamilton, Ont.
Tacoma Steel Company, Van Anda, B.C.

STEEL, Band and Hoop.

Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.

STEEL CASTINGS. (See Castings, Steel.)

STEEL, Channel. (See also Channels, Steel.)

STEEL, Cold-Drawn.

Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
Union Drawn Steel Co., Ltd., Hamilton, Ont.
Western Steel & Iron Co., Ltd., Winnipeg, Man.

STEEL, Machinery and Polished.

Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.
Union Drawn Steel Co., Ltd., Hamilton, Ont.
Western Steel & Iron Co., Ltd., Winnipeg, Man.

STEEL, Merchant Bars. (See also Bars, Steel.)

Canada Steel Co., Ltd., Hamilton, Ont.
Canada Car & Foundry Co., Ltd., Montreal, Que.
London Rolling Mill Co., Ltd., London, Ont.
Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Peck Rolling Mills, Ltd., The, Montreal, Que.
Portland Rolling Mills, St. John, N.B.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.
Steel & Radiation, Ltd., Toronto, Ont.
Tivani Electric Steel Co., Ltd., Belleville, Ont.
Western Steel & Iron Co., Ltd., Winnipeg, Man.

STEEL, Rivet, Sleigh, Shoe, Tire and Toe Calk.

Canada Steel Co., Ltd., Hamilton, Ont.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.

STEEL, Sheet.

Lysaght, John, Ltd., Montreal, Que.
Nova Scotia Steel & Coal Co., Ltd., New Glasgow N.S.
Western Steel & Iron Co., Ltd., Winnipeg, Man.

STEELWORK Architectural and Structural.

Alberta Ornametal Iron Co. Ltd. Redcliff Alta.
Armstrong H. J., Markdale, Ont.
British American Hardware Mfg. Co., Toronto.
Brown Machine Co., Ltd., New Glasgow, N.S.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Bridge Co., Ltd., Walkerville, Ont.
Collingwood Shipbuilding Co., Ltd., Collingwood, Ont.
Corbet Foundry Co., The, Owen Sound, Ont.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Dickson Bridge Works Co., Ltd., Campbellford, Ont.
Dominion Architectural Iron Works, Ltd., Montreal, Que.
Dominion Bridge Co., Ltd., Montreal, Que.
Eastern Canada Steel & Iron Co., Ltd., Quebec,
Estey Bros. Co., Montreal, Que.
Griffiths, Norton Steel Corporation Co., Ltd., Vancouver, B.C.
Hamitlon Bridge Works Co., Ltd., Hamilton, Ont.
Hepburn, John T., Toronto, Ont.
Hill, A., & Co., Mitchell, Ont.
International Marine Signal Co., Ltd., Ottawa, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Kingston Shipbuilding Co., Ltd., Kingston, Ont.
MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.
Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
Matheson, I., & Co., Ltd., New Glasgow, N.S
McGregor & McIntyre, Ltd., Toronto Ont.
McNeill Wm. P. & Co.. New Glasgow, N.S.
Meadows, Geo. B., Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
National Bridge Co. of Canada, Ltd., Montreal.
Northwestern Iron Works, Regina, Sask.
Phoenix Bridge & Iron Works, Ltd., The, Montreal, Que.
Powers, P. J. Co., Ltd., Ottawa, Ont.
Reid & Brown, Toronto, Ont.
Regina Foundry, Ltd., Regina, Sask.
Robertson Iron Works, Victoria, B.C.
Sarnia Bridge Co., Ltd., Sarnia, Ont.
Sovereign Soaps & Chamicals, Ltd., Toronto.
Saskatchewan Bridge & Iron Co., Ltd., Moose Jaw, Sask.
Shipway Iron Bell & Wire Mfg. Co., Ltd., Toronto, Ont.
Smith Foundry Co., Ltd., The, Fredericton, N.B.
Standard Steel Construction Co., Ltd., Port Robinson, Ont.
Steel Furnishing Co., The, New Glasgow, N.S.
St. Lawrence Bridge Co., Ltd., Montreal, Que.
Stratford Bridge & Iron Works Co., Stratford, Ont.
Structural Steel Co., Ltd., Montreal, Que.
Sudbury Construction & Machinery Co., Ltd., The, Sudbury, Ont.
Sydney Foundry & Machine Works, Ltd., Sydney, N.S.
Thor Iron Works, Ltd., Toronto, Ont.
Toronto Structural Steel Co., Ltd., Toronto, Ont.

Vancouver Engineering Works, Ltd., Vancouver, B.C.
Vulcan Iron Works, Ltd., Winnipeg, Man.
Western Steel & Iron Co., Ltd., Winnipeg, Man.
Winnipeg Wire & Iron Works, Winnipeg, Man.

STEELS and WIRES, Corset.

St. Lawrence Steel & Wire Co., Ltd., Gananoque, Ont.

STEELS, Rock Drill, Hammer Drill, Channeler.

Canadian Ingersoll Rand Co., Ltd., Montreal.

STEEL PENS.—Birmingham is the principal seat of this manufacture. Germany has two factories (Leipzig and Berlin), France three at Boulogne, and the United States three, the steel being imported into the last country from England or Sweden. The manufacture of gold pens tipped with iridium has become a specialty in the United States.

STENCILS, Brass.

Barnard, H., Co., Ltd., Hamilton, Ont.
Hamilton Stamp & Stencil Works, Ltd., Hamilton, Ont.
Montreal Stencil Works, Montreal, Que.
Pritchard-Andrews Co. of Ottawa Ltd., The, Ottawa, Ont.
Superior Mfg. Co., Ltd., Toronto, Ont.
Walker & Campbell, Montreal, Que.

STEREOTYPERS.

Central Press Agency, Ltd., Toronto, Ont.
Hood Sandham Co., Ltd., Toronto, Ont.
Littlejohn & Vaughan, Ltd., Toronto, Ont.
Methodist Book & Publishing House, Toronto, Ont.
Montreal Advertising Plate Co., Montreal, Que.
National Electrotype & Stereotype Co., Ltd., The, Toronto, Ont.
Presse Publishing Co., Ltd., La, Montreal, Que.
Rapid Electrotype Co. of Canada, Montreal,
Standard Photo Engraving Co., Ltd., Montreal,

STILLS AND CONDENSERS. Copper.

Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.

STILLS, Water.

Allan, R. Geo., Toronto, Ont.
MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.
McLaughlin, J. J., Ltd., Toronto, Ont.
Wright, E. T., & Co., Hamilton, Ont.

STINKWOOD, a tree growing at the Cape of Good Hope, of the laurel family. The wood has an unpleasant odour, but is very durable, takes a good polish, and resembles walnut.

STOCKFISH, cod dried in the sun without salt.

STOCKINGS. (See Hosiery.)

STOCKINGS Elastic.

Ottawa Truss & Surgical Mfg. Co., Ltd., Ottawa, Ont.

STOGIES AND CHEAP CIGARS.

Fortier, J. M., Ltd., Montreal, Que.
Little Cigars Co., Montreal, Que.

STOKERS, Mechanical.

Babcock & Wilcox, Ltd., Montreal, Que.
Jones Underfeed Stoker Co., Ltd., Toronto, Ont.

STONE.—The most important stones in commerce, such as granite, slate, grindstones, marble, bath stones, &c., will be found under separate headings. Several precious stones are entered under their individual names.

STONE, Artifical Building.

Canfield, F. O., St. Mary's, Ont.
Concrete Products, Ltd., Calgary, Alta.
Perfection Concrete Co., Ltd., Winnipeg, Man.
Medicine Hat Concrete Products Co., Ltd., Medicine Hat, Alta.
Roman Stone Co., Ltd., Toronto, Ont.

STONE, Building.

Berlin Marble Works, The, Berlin, Ont.
Briques de Quebec, Ltd., La Cie. de Quebec,
Canada Crushed Stone Corporation, Ltd., Dundas, Ont.
Colonial Granite Co., Ltd., New Glasgow, N.S.
Corinthian Stone Co., The, Guelph, Ont.
Dufresne & Jarry, St. Laurent, Que.
Fleming Quarries, Glen Williams, Ont.
Hutchison, J. H., Montreal, Que.
Labelle, Felix, Quarry Co., Terrebonne, Que.
Laurentian Granite Co., Ltd., The, Montreal.
Miramichi Quarry Co., Ltd., Quarryville, N.B.
Missisquoi Lautz Corporation, Ltd., Philipsburg, Que.
Morrison Quarry Co., Montreal, Que.
Norcross Bros. Co., Ltd., Iberville, Que.
Pictou Quarries Co., Ltd., Pictou, N.S.
Quinlan Cut Stone Co., Ltd., Montreal, Que.
Read Stone Co., Ltd., The, Sackville, N.B.
Renfrew White Granite Co., Ltd., Ottawa, Ont.
Roman Stone Co., Ltd., Toronto, Ont.
Sackville Freestone Co., Ltd., Sackville, N.B.
Somerville & Co., Brandon, Man.
Sovereign Lime Works, Montreal, Que.
Stanstead Granite Quarries, Ltd., Beebe, Que.
Standard Quarries Co., Ltd., Montreal, Que.
Vancouver Granite Co., Ltd., Vancouver, B.C.
Vokes, John, Toronto, Ont.
Western Canada Stone Co., Ltd., Calgary, Alta.

STONE, Coursing.

Fleming Quarries, Glen Williams, Ont.
Point Anne Quarries, Ltd., Toronto, Ont.

STONE CRUSHED.

Argenteuil Granite Co., Ltd., Quebec, Que.
Briques de Quebec, Ltd., La Cie. de Quebec,
Canada Crushed Stone Corporation, Ltd., Dundas, Ont.
Dufresne & Jarry, St. Laurent, Que.
Gilley Bros., Ltd., The, New Westminster, B.C.
Hagersville Contracting Co., Ltd., Hagersville, Ont.
Huron Trap Rock Co. Ltd., Sault Ste. Marie, Ont.
Kirby The T. Sidney, Co., Ltd., Ottawa, Ont.
Labelle, Felix, Quarry Co., Terrebonne, Que.
Laurentian Granite Co., Ltd., The, Montreal.
Morrision Quarry Co., Montreal, Que.
Ontario Rock Co., Ltd., Toronto, Ont.
Point Anne Quarries, Ltd., Toronto, Ont.
Sackville Freestone Co., Ltd., Sackville, N.B.
Sovereign Lime Works, Montreal, Que.
Maloney, John, Toronto, Ont.
Wentworth Quarry Co., Ltd., Hamilton, Ont.
Western Canada Stone Co., Ltd., Calgary, Alta.
Winnipeg Supply & Guel Co., Ltd., Winnipeg, Man.
Wright & Co., Incorporated, Hull, Que.

STONE, Cut and Dressed.

Berlin Marble Works, The, Berlin, Ont.
Colonial Granite Co., Ltd., New Glasgow, N.S.
Corinthian Stone Co., The, Guelph, Ont.
Hutchison, J. H., Montreal, Que.
Miramichi Quarry Co., Ltd., Quarryville, N.B.
Quinlan Cut Stone Co., Ltd., Montreal, Que.
Robertson, The D., Co., Ltd., Toronto, Ont.
Roman Stone Co., Ltd., Toronto, Ont.
Standard Quarries Co., Ltd., Montreal, Que.
Stewart, John, & Co., Montreal, Que.
Vokes, John, Toronto, Ont.
Wright & Co., Incorporated, Hull, Que.

STONE Bubble.

Briques de Quebec. Ltd., La Cie. de Quebec,
Canada Crushed Stone Corporation, Ltd., Dundas, Ont.
Dufresne & Jarry, St. Laurent, Que.
Fleming Quarries, Glen Williams, Ont.
Hagersville Contracting Co., Ltd., Hagersville, Ont.
Labelle, Felix, Quarry Co., Terrebonne, Que.
Point Anne Quarries, Ltd., Toronto, Ont.
Maloney, John, Toronto, Ont.
Robertson, The D., Co., Ltd., Toronto, Ont.
Sackville Freestone Co., Ltd., Sackville, N.B.
Sovereign Lime Works, Montreal, Que.
Wright & Co., Incorporated, Hull, Que.

STONES, Grind, Oil, Scythe, etc. (See Grindstones Oil. and Scythe Stones.)

STONEWARE.

Belleville Pottery Co., Belleville, Ont.
Campbell's, R., Sons, Hamilton, Ont.
Cranston, John, & Son, Hamilton, Ont.
Davis, John, & Son, North Toronto Ont.
Foley, J. W., & Co., St. John, N.B.

STOOLS Camp. (See also Chairs, Camp and Folding.)

Otterville Mfg. Co., Ltd., Otterville, Ont.
Valley City Seating Co., Ltd., Dundas, Ont.

STOOLS, Office.

Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Canadian Office & School Furniture Co., Ltd., The, Preston, Ont.
Globe Furniture Co., Ltd., The, Waterloo, Ont.
Krug, The H., Furniture Co., Ltd. Berlin, Ont.
Mundell, John C., & Co., Elora Ont.
Office Specialty Mfg. Co., Ltd., Brockville, Ont.
Smart The James Mfg. Co., Ltd., Brockville, Ont.

STOOLS, Piano and Organ.. (See Piano Benches and Stools.)

STOPPERS, Bottle, Sanitary Sealing.

Aluminum & Crown Stopper Co., Toronto, Ont.
Hutchinson & Peterson, Toronto, Ont.

STOPPERS, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.

STORAX, a gum derived from Styrax officinalis of Greece and the Levant, which resembles benzoin. **(See BENZOIN, LIQUID-AMBER, and ROSE MALLOES).**

STORE FIXTURES.

Delfosse & Co., Montreal.

STORE FRONTS, Metal.

Beaver Brass Mfg. Co., Ltd., Toronto, Ont.
Kawneer Mfg. Co., Toronto, Ont.
Metallic Roofing Co. of Canada, Ltd., Winnipeg, Man.

STORE FRONTS, Wood.

Blonde Lumber & Mfg. Co., Ltd., Chatham, Ont.
Hanbury Mfg. Co., Ltd., Brandon, Man.
Winnipeg Cabinet Factory, Ltd., Winnipeg, Man.

STOUT.. (See Porter.)

STOVE PIPE.

Aubry, A., & Fils, Montreal, Que.
Collins Mfg. Co., The, Toronto, Ont.
Davidson, The Thos., Mfg. Co., Ltd., Montreal. Que., and Winnipeg, Man.
Gurney Foundry Co., Ltd., Toronto, Ont.
Fairgrieve Metal & Stamping Co., Toronto, Ont.
Hamilton Stove & Heater Co., Ltd., Hamilton, Ont.
Metallic Ceiling and Siding Co., Montreal.
McClary Mfg. Co., London, Ont.
O-Rib-O Mfg. Co., Winnipeg, Man.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Smith Foundry Co., Ltd., Fredericton, N.B.
Wright, E. T., & Co., Hamilton, Ont.
Welch, A., & Son, Toronto, Ont.

STOVE PIPE DRUMS.

Fairgrieve Metal & Stamping Co., Toronto, Ont.
Wright, E. T., & Co., Hamilton, Ont.

STOVE PIPE ELBOWS.

Aubry, A., & Fils, Montreal, Que.
Davidson, The Thos., Mfg. Co., Ltd., Winnipeg, Man., and Montreal, Que.
Fairgrieve Metal & Stamping Co., Toronto, Ont.
Gurney Foundry Co., Ltd., Toronto, Ont.
McClary Mfg. Co., London, Ont.
O-Rib-O Mfg. Co., Winnipeg, Man.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Wright, E. T., & Co., Hamilton, Ont.

STOVE PIPE EYES.

Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.

STOVE PIPE THIMBLES.

Collins Mfg. Co., The, Toronto, Ont.
Davidson, The Thos., Mfg. Co., Ltd., Montreal.
Fairgrieve Metal & Stamping Co., Toronto, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
O-Rib-O Mfg. Co., Winnipeg, Man.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Smart, The James Mfg. Co., Ltd., Brockville, Ont.
Wright, E. T., & Co., Hamilton, Ont.

STOVES, Electric.

Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Hot Point Electric Heating Co., Toronto.
National Electric Heating Co., Ltd., Toronto,

STOVES, Gas and Oil.

Burrow, Stewart & Milne Co., Ltd., The, Hamilton, Ont.
Gurney Foundry Co., Ltd., Toronto, Ont.
Fairgrieve Metal & Stamping Co., Toronto, Ont.
McClary Mfg. Co., London, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.

STOVES, Heating and Cooking.

Albion Stove Works, Victoria, B.C.
Amherst Foundry Co., Ltd., Amherst, N.S.
Barker, D. J., & Co., Picton, Ont.
Beach Foundry Co., Ltd., Winchester, Ont.
Beaver Stove & Machinery Co., Ltd., Grand Mere, Que.
Belanger, A., Montmagny, Que.
Bowes-Jamieson, Ltd., Hamilton, Ont.
Buck, The Wm., Stove Co., Ltd., Brantford, Ont.
Burrow, Stewart & Milne Co., Ltd., The, Hamilton, Ont.
Butterworth Foundry Ltd., Ottawa, Ont.
Canada Stove & Furniture Co., Ltd., Montreal.
Canadian Heating & Ventilating Co., Ltd., Owen Sound, Ont.
Clare Bros. & Co., Ltd., Preston, Ont.
Copp Stove Co., Ltd., Fort William, Ont.
Davidson, The Thos., Mfg. Co., Ltd., Montreal. Que., and Winnipeg, Man.
Davignon, J. & P., Montreal, Que.
Dorchester Foundry Co., Ltd., Dorchester, N.B.
Doherty Mfg. Co., Ltd., The, Sarnia, Ont.
Dominion Stove & Foundry Co., Penetanguishene, Ont.
Enterprise Foundry Co., The, Sackville, N.B.

Farquhar Bros., Ltd., Halifax, N.S.
Fawcett, Chas., Ltd., Sackville, N.B.
Findlay Bros., Ltd., Carleton Place, Ont.
Galt Stove & Furnace Co., Ltd., Galt, Ont.
Grundy Bros., Strathroy, Ont.
Griffin, Thomas, Guelph, Ont.
Guelph Stove Co., Ltd., Guelph, Ont.
Gurney Foundry Co., Ltd., Toronto, Ont.
Hall, Zryw Foundry Co., Ltd., Hespeler, Ont.
Hamilton Stove & Heater Co., Ltd., Hamilton, Ont.
Harriston Stove Co., Ltd., The, Harriston, Ont.
Hillis & Sons, Ltd., Halifax, N.S.
Lamarre & Compagnie, St. Remi ,Que.
Lee Mfg. Co., Ltd., Pembroke, Ont.
Lepage, C. H., & Co., Ltd., Quebec, Que.
Lunenburg Foundry Co., Ltd., Lunenburg, N.S.
McClary Mfg. Co., London, Ont.
McLean, Holt & Co., St. John, N.B.
McLennan, Feely & Co., Ltd., Vancouver, B.C.
Moffat Stove Co., Ltd., The, Weston, Ont.
Moore, The D., Co., Ltd., Hamilton, Ont.
National Mfg. Co., Ltd., Ottawa, Ont.
New Burrell-Johnson Iron Co., Ltd., The, Yarmouth, N.S.
Percival Puow & Stove Co., Ltd., Merrickville, Ont.
Plessisville, Foundry Co., Ltd., The, Plessisville, Ont.
Prowse, Geo. R., Range Co., Ltd., Montreal.
Record Foundry & Machine Co., Moncton, N.B.
Shaw & Mason, Ltd., Sydney, N.S.
Smart, The Jas, Mfg. Co., Ltd., Brockville, Ont.
Smith Foundry Co., Ltd., The, Fredericton, N.B.
Stewart, The James, Mfg. Co., Ltd., Woodstock, Ont.
Supreme Heating Co., Ltd., Welland, Ont.
Thompson & Sutherland, Ltd., Ne wGlasgow, N.S.
Tilden, Gurney & Co., Ltd., Winnipeg, Man.
Tudhope-Anderson Co., Ltd., Orillia, Ont.
Victoriaville Foundry Co., Victoriaville, Que.
Western Foundry Co., Ltd., The, Wingham, Ont.
Wheeler & Bain, Toronto, Ont.
Windsor Foundry & Machine Co., Ltd., Windsor, Ont.
Wilson, John E., Ltd., St. John, N.B.

STOVES, Laundry, Camp and Car.

Collins Mfg. Co., The, Toronto, Ont.
Davidson, The Thos., Mfg. Co., Ltd., Winnipeg, Man.
Hamilton Stove & Heater Co., Ltd., The, Hamilton, Ont.
McClary Mfg. Co., London, Ont.
Moffat Stove Co., Ltd., The, Weston, Ont.
Lamarre & Compagnie, St. Remi, Que.

STRAINERS, Brass.

Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

STRAINERS, Gas and Water.

Mueller, H., Mfg. Co., Ltd., Sarnia, Ont.

STRAINERS, Sink.

Andrews Wire Works Co. of Canada, Ltd., Watford, Ont.

STRAINERS, Wire Bowl.

Cummings Brass, Iron & Wire Co., Ltd., Winnipeg, Man.
Fletcher Mfg. Co., Ltd., Toronto, Ont.
Wright, E. T., & Co., Hamilton, Ont.

STRAMONIUM.—The leaves and seeds of the thorn-apple contain an alkaloid, daturine, nearly identical in its action with atropine, and are employed in medicine, especially to relieve asthma. The common thorn-apple is met with in Europe, Asia, the north of Africa, and North America.

STRAPS, Deckle (Rubber).

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.

STRAPS, Leather.

Ackerman, B. F., Son & Co., Peterborough, Ont.
Alberta Saddlery Co., Ltd., Lethbridge, Alta.
Adams Bros. Harness Mfg. Co., Ltd., Toronto.
Carson, Hugh, Ltd., Ottawa, Ont.
Eagle Leather Works, Montreal, Que.
Edwards, J. E. & Sons, Toronto, Ont.
General Leather Goods, Ltd., Toronto, Ont.
Great West Saddlery Co., Ltd., The, Winipeg, Man.
Griffith, G. L., & Son, Stratford, Ont.
Heney Carriage & Harness Co., Ltd., Montreal.
Jolley, Jas., & Sons, Ltd., Hamilton, Ont.
Lamontagne, Ltd., Montreal, Que.
Leather Tire Goods Co., The, Niagara Falls, Ont.
McCarthy, H. B., Toronto, Ont.
McLaren, Tne J. C., Belting Co., Ltd., Montreal.
Winnett & Wellinger, Ltd., Toronto, Ont.

STRAW.—Straw is used in paper-making, for matting, packing material, &c. One of its most important applications is for straw plait, which is made up into hats, small baskets, &c. Wheat, rye, and rice straws are used, but the former is the best. At Luton, Bedfordshire, the straw is split, while in Tuscany whole straws from a particular kind of wheat are plaited. Large quantities of straw are exported from China at a lower price than European plaiters of low class straws can produce them. London is the market for Chinese plait. (See also **HATS**).

STRAWBOARDS.

Ford, J., & Co., Portneuf Station, Que.
Lazier Paper Mills, Ltd., Belleville, Ont.
Miller Bros. Co., Ltd., The, Montreal, Que.
Northumberland Paper & Electric Co., Ltd., Campbellford, Ont.
Trent River Paper Co., Ltd., The, Frankford, Ont.

STRAW CUTTERS..

Bateman, Wilkinson Co., Ltd., Toronto, Ont.
Bell, B., & Son Co., Ltd., St. George, Ont.
Bessette, La Cie., J. & S. Ltd., Iberville, Que.
Bruce Agricultural Works, The, Teeswater, Ont.
Bruce Agricultural Works, The, Teeswater, Ont.
Cockshutt Plow Co., Ltd., Brantford, Ont.
Dain Mfg. Co., Ltd., Welland, Ont.
Dick, Wm., Bolton, Ont.
Fleury's, J., Sons. Aurora, Ont.
Gilson Mfg. Co., Ltd., Guelph, Ont.
Goodison, The John Thresher Co., Ltd., Sarnia, Ont.
Hamilton, Peter, Co., Ltd., Peterborough, Ont.
Massey-Harris Co., Ltd., Toronto, Ont.
Macdonald Thresher Co., Ltd., The, Stratford, Ont.
Watson, John, Mfg. Co., Ltd. ,Ayr, Ont.
White, The George, & Sons Co., Ltd., London, Ont.

STRAW GOODS.

St. Johns Straw Works Co., Ltd., St. Johns, Que.

STREET SWEEPERS.

American Road Machine Co. of Canada, Ltd., Goderich, Ont.

STRETCHERS, Canvas.

Otterville Mfg. Co., Ltd., Otterville, Ont.

STRETCHERS, Carpet.

Canada Steel Goods Co., Ltd., Hamilton, Ont.

STRETCHERS, Curtain (Wood.)

Otterville Mfg. Co., Ltd., Otterville, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

STRETCHERS, Wire.

Graham Nail Works, The, Toronto, Ont.
Richards-Wilcox Canadian Co., Ltd., London, Ont.
Turner, John, & Son, Toronto, Ont.

STRETCHERS, Wire Fence.

Ideal Fence Co., Ltd., The, Winnipeg, Man.
Lamb, H. R., Fence Co., Ltd., London, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Page Wire Fence Co., Ltd., Walkerville, Ont.
Sarnia Fence Co., Ltd., Sarnia, Ont.
Steel Co. of Canada, Ltd., Montreal, Que.

STRIPPER HARVESTERS.

Massey-Harris Co., Ltd., Toronto, Ont.

STRONTIUM, a metal of a yellowish white colour, which occurs as a carbonate in the mineral strontianite, found near Strontian, Argyllshire, and in Germany, and, as Celestite (a sulphate), in Sicily. The hydroxide is used in sugar refining, but barium hydroxide is taking its place. The nitrate and chloride are used in fireworks.

STROPS, Razor.

General Leather Goods, Ltd., Toronto, Ont.

STROPHANTHUS, the seeds of a plant of tropical Africa, are used in medicine as a heart stimulant. They are very poisonous.

STRYCHNINE. (See **NUX VOMICA**).

STUCCO.

Alabastine Co., Paris, Ltd., The, Paris, Ont.
Crown Gypsum Co., Ltd., Lythmore, Ont.
Dominion Gypsum Co., Ltd., Winnipeg, Man.

STUDS (Brass), Shoe and Iron.

Canada Tool Specialty Co., Ltd., New Glasgow, N.S.
Morrow, John Screw & Nut Co., Ltd., Ingersoll, Ont.
National Acme Mfg. Co., Montreal, Que.

STUDS, Metal, Upholstering.

Dominion Tack & Nail Co., Ltd., The, Galt, Ont.

STUMP PULLERS.

Canadian Swensons, Ltd., Lindsay, Ont.
Tudhope, Anderson Co., Ltd., Orillia, Ont.
Whitfield, The John, Co., Toronto, Ont.

STURGEON.—The common sturgeon ascends the rivers of Europe, and furnishes the caviare of the Elbe; the sterlet is found in the Danube and Volga and in the Caspian Sea, and species are found in the Black and Caspian seas. The largest fisheries are those of the Volga and the other rivers of southern Russia. The flesh of the fish is salted, and caviare and isinglass are made from the roes and air-bladders. Species of sturgeon frequent the rivers and lakes of North America, and caviare is made. (See **FISH**).

SUCCADES.—Fruits and other articles preserved in sugar.

SUGAR and MOLASSES of commerce are obtained from the juice of the sugar cane, and of the sugar beet, and from the starch of Indian corn, and potatoes. Sugar and molasses made from the maple trees are also articles of commerce, particularly in Canada.

The sugar cane grows in most tropical countries, but most successfully in Cuba, and the other West Indian Isles, Java, Brazil, Manilla, and Mauritius. The plant is not propagated from seed, but from slips taken from the upper part of the cane. The stocks, or cane, resemble those of corn, and grow from eight to fifteen feet high, and from 1½ to 2 inches in diam. When mature the canes are cut close to the ground, and taken to a mill where the juice is crushed out by pressing the stocks between iron rollers. The juice is a turbid, frothy, liquid, of a yellowish-green colour, containing about 15 per cent. of sugar. This juice is clarified, a small quantity of lime added to keep it from fermenting, and then boiled down, that is "the water is driven off by heat,'' to a thickness where the sugar will crystallize, when the remaining liquor or molasses is poured off, and both the sugar and molasses packed separately in barrels and bags for shipment. During the boiling down stage, a thick scum rises to the top. This is used for making rum.

The sugar beet is very similar in appearance to the mangel wurzel, and is cultivated very much like turnips. Sugar beets grow best in temperate climates, and mature about five months after seeding. The principal producing countries are Russia, Germany, Austria-Hungary, France, Belgium, Holland, and the United States.

The sugar beet thrives well in many parts of Canada, and carries as high a percentage of sugar as that grown in any other country, but the Canadian industry is not yet a large one. During the months of September and October, the beets are pulled and taken to a factory where the juice is extracted, either by pressure or diffusion, after being washed and trimmed. Several processes are used in clarifying the juice, after which it is boiled down, and the crystals of sugar separated from the remaining liquor by centrifugal motion, and other methods. A spirit is distilled from the remaining liquor, which is used for industrial purposes, and the pulp of the beet is fed to cattle, and used for a fertilizer.

Canada is the home of the sugar maple, and hence the principal producer of maple sugar. The Northern States of the United States also produce considerable quantities of this article. In early spring just as the buds are beginning to swell, the maple tree yields a sap containing a high percentage of sugar. This is gathered by ''tapping,'' that is, burrowing a shallow hole into the tree and driving in just below the hole a ''spile,'' or hollow piece of wood or iron for the purpose of conveying the sap into the buckets which are fastened to the tree. The sap is gathered and boiled down to the thickness of syrup, or when sugar is required, to a thickness where, on cooling, it crystallizes into sugar.

Considerable syrup and sugar is made from potato starch in Germany, and other European countries, and from the starch of Indian corn in the United States and Canada. The starch is acted upon by a weak solution of sulphuric acid, by boiling with water, and it is thus converted into sugar. Starch sugar, sometimes called grape sugar, is largely used in breweries, and distilleries, and by confectioners. It is used also as an adulterant in honey.

The total production of sugar for the year 1913-14, amounted to 20,883,000 short tons, of which 11,118,000 were made from the sugar cane and 9,765,000 from the sugar beet. The principal cane sugar producing countries were as follows:—

	Short Tons.
Cuba	2,909,000
British India	2,534,000
Java	1,591,000
United States	1,276,000
Australia	397,000
Argentine-Republic	304,000
Mauritius	271,000
Philippines	235,000
Brazil	228,000
Formosa	213,000
Peru	212,000
Mexico	143,000
Guiana (British and Dutch)	130,000
Fiji	112,000

The principal countries producing beet sugar are as follows:—

Germany	2,886,000
Russia	2,031,000
Austria-Hungary	1,858,000
France	861,000
United States	732,000
Italy	327,000
Netherlands	253,000
Belgium	249,000
Denmark	178,000
Spain	176,000
Sweden	153,000
Romania	38,000
Canada	10,000

Apart from the small amount of the domestic beet, maple and starch sugars, the Canadian sugar industry is engaged in the refining of the raw sugar, and syrup imported from countries where the sugar cane and sugar beet are extensively grown. In this refining process the raw sugar and molasses are reduced to a thin syrup by the addition of water. This syrup is then filtered or strained, discolored by passing or filtering through beds of animal charcoal, and the water again driven off and the sugar crystallized out into various sized crystals according to the grades of sugar required. The syrup left after the crystals are removed is sold as golden syrup. The annual imports of the fine sugar into Canada amount to about 10,000 tons, and of unrefined sugar and molasses to about 325,000 tons.

SUGAR, Icing.

Codville Co., Ltd., The, Winnipeg, Man.
Dominion Sugar Co., Ltd., Wallaceburg, Ont.
Patrick, W. G., & Co., Toronto, Ont.

SUGAR REFINED. Granulated and Yellow.

Acadia Sugar Refining Co., Ltd., Halifax, N.S.
Atlantic Sugar Refineries, Ltd., St. John, N.B.
Dominion Sugar Co., Ltd., Wallaceburg, Ont.
British Columbia Sugar Refining Co., Ltd., Vancouver, B.C.
Canada Sugar Refining Co., Ltd., Montreal, Que.
St. Lawrence Sugar Refineries, Ltd., Montreal.

SUIT CASES.

Adams Mfg. Co., Ltd., Toronto, Ont.
Berlin Trunk & Bag Co., Ltd., The, Berlin, Ont.
Borbridge, S. & H., Ottawa, Ont.
Carson, Hugh, Ltd., Ottawa, Ont.
Christie Trunk & Bag Co., Ltd., Amherst, N.S.
Commercial Trunk Co., Ltd., London, Ont.
Eveleigh, J. & Co., Ltd., Montreal, Que.
Fournier, J. E., Montreal, Que.
Kelly's, Ltd., Halifax, N.S.
Langmuir, The M., Mfg. Co., of Toronto, Ltd., Toronto, Ont.
McBride, The L. Co., Ltd., Berlin, Ont.
McLeod, Hawthorne Co., Ltd., Montreal, Que.
Stewart, T. A., Winnipeg, Man.
Taylor, G. R., & Co., Winnipeg, Man.

SUGAR OF LEAD. (See LEAD).

SUINT.—The grease washed out of sheep's wool. As lanoline it is employed in pharmacy and soap-making.

SULKIES.

Desardins, La Cie., St. Andre, Kamouraska Co., Que.
Lochrie, James, Toronto, Ont.

SULKIES, Children's.

Gendron Mfg. Co., Ltd., Toronto, Ont.

SULPHONAL.—A synthetic hypnotic of very complex composition.

SULPHATE OF COPPER.—The world's production of sulphate of copper in 1913 was 178,785 metric tons. The principal producing countries were as follows:—

	Metric Tons.
United Kingdom	76,843
Italy	29,217
France	26,000
United States	24,643
Austria Hungary	15,400
Germany	5,682

SULPHUR.—Native sulphur is widely distributed, especially in volcanic districts and sulphur also occurs in combination with other minerals, particularly iron, as iron pyrites, fools gold, etc. Native sulphur is used in large quantities for the manufacture of gunpowder, matches, etc., and in the form of sulphurous acid as a bleaching agent, but the greater part is consumed in the production of sulphuric acid or the oil of vitriol.

Although native sulphur is widely distributed, most of the world's commercial product comes from two localities, namely, Sicily, off the South of Italy and Louisiana, one of the Southern United States. In Italy sulphur is dug out in a hard substance but in Louisiana the deposit is so far below a quicksand formation, that it has to be melted with steam at a high temperature and pressure which is forced down into the bed. It is then pumped out in a viscous condition. When hardened it resembles great heaps of butter. Previous to the discovery of sulphur in Louisiana, Sicily supplied practically the whole of the world's requirements of natural sulphur, but in 1913 the producing countries were as follows:

	Metric Tons of 2,204 lbs.
Italy	393,188
United States	316,575
Japan	49,131
Other countries	50,000
Total	808,894

Canada being a large manufacturer of sulphite pulp, uses considerable quantities of sulphur. The importations in 1914 amounted to 29,856 tons, valued at $620,380. (See **PYRITE**).

SULTANAS. (See **RAISINS**).

SUMAC, or SUMACH, the twigs and leaves of Rhus cotinus and R. coriaria, for tanning and dyeing black and yellow. (See **FUSTIC**). The best comes from Sicily, and that of Spain is little inferior in quality, but is often adulterated. In southern France the leaves of the tanner's sumach, are similarly used.

SUMBUL, the perfume roots of Ferula sumbul. (See **MUSK PLANTS**).

SUNFLOWER SEED.—The annual sunflower is grown in Russia and Hungary for the sake of its seeds, which yield an edible and illuminating oil. Of the vegetable oils extracted in Russia, the sunflower supplies about 20 per cent. The seedcake is exported to Germany and Great Britain.

SUNN HEMP, the fibre of a leguminous plant which grows in India and other parts of southern Asia. Jabalpur hemp is the fibre of C. tenuifolia. This material is made into ropes and other coarse goods.

SUPERHEATERS, Steam.

Babcock & Wilcox, Ltd., Montreal, Que.
Don Foundry Co., Toronto, Ont.

SUPPLEJACKS, flexible stems of a tree which are made into walking-sticks. Australia and New Zealand also export supplejacks.

SURCINGLES.

Turner, J. J. & Sons, Peterborough, Ont.

SURREYS (Vehicles.)

Barrie Carriage Co., Ltd., Barrie, Ont.
Brantford Carriage Co., Ltd., Brantford, Ont.
Granby Carriage Co., The, Granby, Que.
Gray-Sons-Campbell, The, Wm., Ltd., Chatham, Ont.
Heney Carriage & Harness Co., Ltd., Montreal.
McLaughlin Carriage Co., Ltd., Oshawa, Ont.
Munro & McIntosh Carriage Co., Ltd., The, Alexandria, Ont.
O'Neill, J. N., Georgetown, Ont.
Tudhope Carriage Co., Ltd., Orillia, Ont.

SUSPENDERS.

Berlin Suspender Co., Ltd., Berlin, Ont.
Brophey Umbrella Co., Ltd., Toronto, Ont.
Canadian Suspender & Mfg. Co., Ltd., Toronto.
Crompton Corset Co., Ltd., Toronto, Ont.
Dominion Suspender Co., The, Niagara Falls, Ont.
Eisman & Co., Toronto, Ont.
Globe Suspender Co., Rock Island, Que.
Halls, Ltd., Brockvilel, Ont.
King Suspender Co., Toronto, Ont.
Leadlay Mfg. Co., Ltd., Winnipeg, Man.
Montreal Suspender & Umbrella Mfg. Co., Montreal, Que.
Monarch Suspender Co., The, Toronto, Ont.
Standard Suspender Co., Montreal, Que.
Westwood, C. H., Mfg. Co., Ltd., Toronto, Ont.

SWAN.—The skin and feathers of wild swans are sold, the down being used as trimming, &c., and for powder puffs. A few quills are made into pens. (See **DOWN** and **QUILLS**).

SWEATERS AND SWEATER COATS, (See also Knitted Goods, Woollen.)

Pride of the West Knitting Mills, Vancouver, B.C.
Vancouver Knitting Co., Vancouver, B.C.
Leadley Mfg. Co., Winnipeg, Man.
Stobarts', Ltd., Winnipeg, Man.
Stanfield's, Ltd., Truro, N.S.
Almonte Knitting Co., Almonte, Ont.
Hamilton & Lewitt Knitting Co., Amherstburg, Ont.
Best-Knit, Ltd., Brampton, Ont.
Monarch Knitting Co., Dunnville, Ont.
Colonial Knitting Co., Guelph, Ont.
R. Forbes Co., Ltd., Hespeler, Ont.
John Brown, Horning's Mills, Ont.
Perfect-Knit Mills, Ltd., Listowel, Ont.
A. Burritt & Co., Mitchell, Ont.
Visor Knitting Co., Niagara Falls, Ont.
Penman's, Ltd., Paris, Ont.
T. A. Code, Perth, Ont.
R. M. Ballantyne, Ltd., Stratford, Ont.
Williams-Trow Knitting Co., Stratford, Ont.
Dominion Knitting Mills, Toronto, Ont.
Olympic Mfg. Co., Toronto, Ont.
Reliance Knitting Co., Toronto, Ont.
Scott Knitting Co., Toronto, Ont.
Joseph Simpson Sons, Toronto, Ont.
Teas-Knit Co., Toronto, Ont.
Thomas Warren, Toronto, Ont.
York Knitting Mills, Ltd., Toronto, Ont.
Acme Glove Works, Marieville, Que.
Garayt Knitting Co., Montreal, Que.
Hudson Bay Knitting Co., Montreal, Que.
Knit-to-Fit Mfg. Co., Montreal, Que.
Regent Knitting Mills, Montreal, Que.

SWEEPING COMPOUNDS.

British Columbia Refining Co., Ltd., Vancouver, B.C.
Canadian Pyrofugant Flooring Co., Ltd., Berlin, Ont.
Carbon Oil Works, Ltd., The, Winnipeg, Man.
Cudahy Packing Co., Toronto, Ont.
Parker-Whyte, Ltd., Winnipeg, Man.
Sapho Mfg. Co., Ltd., Montreal, Que.

SWEET FLAG. (See **CALAMUS**).

SWEET POTATO.—The true sweet potato, Batatas edulis, of the order Convolvulaceæ, is planted in southern Asia, and tropical America. The roots weigh on an average 3 lbs. to 12 lbs.

SWEET SOP. (See **CUSTARD APPLE**).

SWEETS.—A trade-name for aromatic liqueurs and cordials and home-made wines.

SWINE. (See **HOGS**).

SWINGS, Lawn.

Berlin Woodenware Co., Berlin, Ont.
Danville Chair & Specialty Co., Ltd., Danville, Que.
Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
Stratford Mfg. Co., Ltd., Stratford, Ont.
Templin Mfg. Co., Fergus, Ont.

SWITCHBOARDS.

Ahearn & Soper, Ltd., Ottawa, Ont.
Canadian Crocker-Wheeler Co., Ltd., The,, St. Catharines, Ont.
Canadian General Electric Co., Ltd., Toronto.
Canadian Electrical & Motor Co., Ltd., Toronto.
Canadian Machine Telephone Co., Ltd., Toronto.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Consolidated Electric Co., Ltd., Toronto, Ont.
Crouse-Hinds of Canada, Ltd., Toronto, Ont.
Devoe Electric Switch Co., Montreal, Que.
Electrical Construction Co., Ltd., London, Ont.
Hinton Electric Co., Ltd., Vancouver, B.C.
Monarch Electric Co., Ltd., St. Lambert, Que.
Northern Electric & Mfg. Co., Ltd., Montreal.
Toronto & Hamilton Electric Co., Hamilton, Ont.

SWITCHES, Electric.

Benjamin Electric Mfg. Co. of Canada, Ltd., Toronto, Ont.
Canadian Crocker-Wheeler Co., Ltd., The,, St. Catharines, Ont.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Century Electric Company, Montreal, Que.
Consolidated Electric Co., Ltd., Toronto, Ont.
Crouse-Hinds of Canada, Ltd., Toronto, Ont.
Devoe Electric Switch Co., Montreal, Que.
Marshall-Davis, Ltd., Dunnville, Ont.
Monarch Electric Co., Ltd., St. Lambert, Que.
Munderloh Electric Co., Ltd., Montreal, Que.
Northern Electric & Mfg. Co., Ltd., Montreal.

SWITCHES for Railways.

Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
Canadian Steel Foundries, Ltd., Montreal, Que.
Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
Sudbury Construction & Machinery Co., Ltd., The, Sudbury, Ont.
Vulcan Iron Works, Ltd., Winnipeg, Man.

SWIVELS, Chain.

Canadian Warren Axe & Tool Co., Ltd., St. Catharines, Ont.
Coghlin, B. J., & Co., Ltd., Montreal, Que.

SWIVELS and CONES, for Wire Ropes.

Cummings, J. W., & Son, Ltd., New Glasgow, N.S.

SYCAMORE is generally a shade tree. The wood is not very valuable. It has a slight use in furniture and for handles of tools. In Canada it grows only in the Western peninsula of Ontario. It is of more commercial value in United States. **(See WOOD).**

SYPHONS.

Hutchinson & Peterson, Toronto, Ont.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Selby & Youlden, Ltd., Kingston, Ont.
Willson & Warden, Toronto, Ont.

SYRINGES, Bulb and Fountain.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Walpole Rubber Co., Ltd., Montreal, Que.

SYRUP, Corn.

Canada Starch Co., Ltd., The, Brantford, Ont. and Montreal, Que.
St. Lawrence Starch Co., Ltd., Port Credit, Ont.

SYRUPS, Fruit.

Annapolis Valley Vinegar Co., Bridgetown, N.S.
Bush, W. J., &o Co. (Canada), Ltd., Montreal.
Canada Preserving Co., Ltd., Hamitlon, Ont.
Christin & Co., Inc., Montreal, Que.
Coca-Cola Co., The, Toronto, Ont.
Dearborn & Co., Ltd., St. John, N.B.
Dominion Biscuit Co., Ltd., Vancouver, B.C.
Drake, Francis, New Glasgow, N.S.
Dyson Co., The, Winnipeg, Man.
Gagnon-Garant, Ltd., Quebec, Que.
Graves, M. W., & Co., Bridgetown, N.S.
Gurd, Chas. & Co., Ltd., Montreal, Que.
Imperial Extract Co., Toronto, Ont.
Labreque & Pellerin, Montreal, Que.
Lytle, The T. A. Co., Ltd., Toronto, Ont.
McLaughlin, J. J., Ltd., Toronto, Ont.
Milloy, P. A., Montreal, Que.
Moirs, Ltd., Halifax, N.S.
National Canners, Ltd., Hamilton, Ont.
St. Louis Preserving Co., Ltd., Montreal, Que.
Smith, E. D., & Son, Ltd., Winona, Ont.
Smith, The J. Hungerford, Co., Ltd., Toronto.
Taylor & Tennant, Amherst, N.S.
Yeaton, George H., & Sons, Ltd., Hantsport, N.S.
Young-Winfield, Ltd., Hamilton, Ont.

SYRUP, Maple.

Labreque & Pellerin, Montreal, Que.
National Canners, Ltd., Hamilton, Ont.
Quebec Preserving Co., Quebec, Que.
Ramsay's, Ltd., Montreal, Que.
Sugasr & Canners, Ltd., Montreal, Que.

SYRUPS, Medicinal.

Brayley Drug Co., Ltd., St. John, N.B.
Gates, C., & Son, Co., Middleton, N.S.
Horner, F. W., Ltd., Montreal, Que.
Parke, Davis & Co., Walkerton, Ont.
Saunders, W. E., & Company, London, Ont
Stearns, Frederick, & Co. of Canada, Ltd., Windsor, Ont.
Wampole, Henry K., & Co., Ltd., Perth, Ont.
World's Dispensary Association, Bridgeburg, Ont.

SYRUP, Sugar.

Acadia Sugar Refining Co., Ltd., Halifax, N.S.
Canada Sugar Refining Co., Ltd., Montreal, Que.

SYSTEMS, Acounting.

Appleford Counter Check Co., Ltd., The, Hamilton, Ont.
Autographic Register Co. of Canada, Ltd., Montreal, Que.
Dominion Register Co., Ltd., Toronto, Ont.
Hamilton Ideal Mfg. Co., Ltd., Hamilton, Ont.

SYSTEMS, Loose Leaf.

Autographic Register Co. of Canada, Ltd., Montreal, Que.
Borrie, H. J., Montreal, Que.
Brown, The James B., Co., Winnipeg, Man.
Burt, F. N., Co., Ltd., Toronto, Ont.
Business Systems, Ltd., Toronto, Ont.
Canada Loose Leaf Co., Ltd., Montreal, Que.
Copeland-Chatterson Co., Ltd., Toronto, Ont.
Davis & Henderson, Ltd., Toronto, Ont.
Dawson, Chas. F., Ltd., Montreal, Que.
Dawson, W. V., & Co., Montreal, Que.
Douglas Co., Ltd., The, Edmonton, Alta.
Duncan, Robert, & Co., Hamilton, Ont.
Esdale Press, Ltd., The, Ottawa, Ont.
Federated Press, Ltd., The, Montreal, Que.
Fortier, Joseph, Montreal, Que.
Gage W. J., & Co., Ltd., Toronto, Ont.
Gareau-Sauriol Co., The, Montreal, Que.
Grand & Toy, Ltd., Toronto, Ont.
Hart, S. R., & Co., Toronto, Ont.
Librarie Beauchemin, Ltd., Montreal, Que.
Lovell, The R. J., Co., Ltd., Toronto, Ont.
McGowan, The S. J., Mfg. Co., Ltd., St. John, N.B.
Might Directories, Ltd., Ottawa, Ont.
Mortimer & Co., Ltd., Ottawa, Ont.
Morton, Phillips & Co., Montreal, Que.
Richardson Systems, Ltd., The, Winnipeg, Man.
Taylor, T. W., Co., Ltd., Winnipeg, Man.
United Typewriter Co., Ltd., Toronto, Ont.
Warwick Bros. & Rutter, Ltd., Toronto, Ont.

T

TABLE CLOTHES, Linen Damask.

Dominion Linen Mfg. Co., Ltd., Guelph, Ont.

TABLES, Billiard, Pool and Bagatelle.

Brunswick-Balke Collender Co. of Canada, Ltd., Toronto, Ont.
Clark, J. D., Billiard Co., Winnipeg, Man.
May, Samuel, & Co., Toronto, Ont.
Reid Bros. Mfg. Co., of Toronto, Toronto, Ont.

TABLES, Camp and Folding.

Ben Hur Furniture Co., Ltd., Hamilton, Ont.
Otterville Mfg. Co., Ltd., Otterville, Ont.
Peterborough Canoe Co., Ltd., Peterborough, Ont.
Stratford Mfg. Co., Ltd., Stratford, Ont.
Westport Woodworking Co., Ltd., Westport, Ont.

TABLES, Communion, Study, Etc.

Globe Furniture Co., Ltd., The, Waterloo, Ont.
McLagan, The George, Furniture Co., Ltd., Stratford, Ont.
Valley City Seating Co., Ltd., The, Dundas, Ont.

TABLES, Dining-room, Extension.

Anthes Furniture Co., Berlin, Ont.
Baird Brothers, Plattsville, Ont.
Bell Furniture Co., Ltd., The, Southampton, Ont.
Berlin Table Mfg. Co., Ltd., The, Berlin, Ont.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Chesley Furniture Co., Ltd., Chesley, Ont.
Eastern Townships Furniture Mfg. Co., Arthabaska, Que.
Fournier, Edouard, Montreal, Que.
Harriston Furniture Mfg. Co., Harriston, Ont.
Hepworth Mfg. Co., Ltd., The, Hepworth, Ont.
Hespeler Furniture Co., Ltd., Hespeler, Ont.
Hibner Furniture Co., Ltd., Berlin, Ont.
Kensington Furniture Co., Goderich, Ont.
Knechtal Furniture Co., Ltd., Hanover, Ont.
Krug Bros. Co., Ltd., Chesley, Ont.
Lippert, The Geo., J., Table Co., Ltd., Berlin, Ont.
Lucknow Table Co., Lucknow, Ont.
Malcolm, The Andrew, Furniture, Co., Ltd., Kincardine, Ont.
McLagan, The George, Furniture Co., Ltd., Stratford, Ont.
National Table Co., Ltd., Owen Sound, Ont.
Markdale Furniture Co., Ltd., Markdale, Ont.
Meaford Mfg. Co., Ltd., Meaford, Ont.
North American Furniture Co., Ltd., Owen Sound, Ont.
Oliver, J., & Sons, Ltd., Ottawa, Ont.
Rogers, Chas., & Sons, Ltd., Toronto, Ont.
St. Lawrence Furniture Co. Riviere du Loup, Que.
Spiesz Furniture, Ltd., The, Hanover, Ont.
Stratford Chair Co., Stratford, Ont.
Strathroy Furniture Co., Ltd., Strathroy, Ont.
Toronto Furniture Co., Ltd., Toronto, Ont.

TABLES, Drawing.

Globe Furniture Co., Ltd., The, Waterloo, Ont.

TABLES, Dressing.

Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Lucknow Table Co., Lucknow, Ont.
Malcolm & Souter Furniture Co., Ltd., Hamilton, Ont.

TABLES, Kitchen.

Ben Hur Furniture Co., Ltd., Hamilton, Ont.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Cushing Bros. Co., Ltd., Calgary, Alta.
Czerwinski Box Co., Ltd., Winnipeg, Man.
Eastern Townships Furniture Mfg. Co., Arthabaska, Que.
Fournier, Edouard, Montreal, Que.
Hepworth Mfg. Co., Ltd., The, Hepworth, Ont.
Knechtal Furniture Co., Ltd., Hanover, Ont.
Krug Bros. Co., Ltd., Chesley, Ont.
Lucknow Table Co., Lucknow, Ont.
Oliver, J., & Sons, Ltd., Ottawa, Ont.
St. Lawrence Furniture Co. Riviere du Loup, Que.
Spiesz Furniture, Ltd., Hanover, Ont.
Weiler Brothers, Victoria, B.C.
Windsor Furniture Co., Ltd., Windsor, N.S.

TABLES, Office and Library.

Baetz Bros. & Co., Berlin, Ont.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Coast Mfg. Co., Vancouver, B.C.
Chesley Furniture Co., Ltd., Chesley, Ont.
Coombe, The F. E., Furniture Co., Kincardine, Ont.
Elmira Furniture Co., Ltd., Elmira, Ont.
Elora Furniture Co., The, Elora, Ont.
Ferguson, John, & Sons, London, Ont.
Globe-Wernicke Co., Ltd., Stratford, Ont.
Hespeler Furniture Co., Ltd., Hespeler, Ont.
Hibner, The D., Furniture Co., Ltd., Berlin, Ont.
Krug, The H., Furniture Co., Ltd., Berlin, Ont.
Kreiner, J., & Co., Berlin, Ont.
Library Bureau of Canada, Ltd., Ottawa, Ont.
Lindsay Library & Office Fitting Co., Ltd., Lindsay, Ont.
Lippert Furniture Co., Ltd., Berlin, Ont.
Malcolm, The Andrew, Furniture, Co., Ltd., Kincardine, Ont.
Malcolm & Souter Furniture Co., Ltd., Hamilton, Ont.
McLagan, The George, Furniture Co., Ltd., Stratford, Ont.
Meaford Mfg. Co., Ltd., Meaford, Ont.
National Table Co., Ltd., Owen Sound, Ont.
North American Furniture Co., Ltd., Owen Sound, Ont.
Office Specialty Mfg. Co., Ltd., Toronto, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Rhodes, Curry Co., Ltd., Amherst, N.S.
Snyder Bros. Upholstering Co., Ltd., Waterloo, Ont.
Stratford Desks, Ltd., Stratford, Ont.
Strathroy Furniture Co., Ltd., Strathroy, Ont.
Toronto Furniture Co., Ltd., Toronto, Ont.
Woeller, Bolduc & Co., Waterloo, Ont.

TABLES, Ore Concentrator.

Brown Machine Co., Ltd., New Glasgow, N.S.

TABLES, Parlor.

Beach Furnituer Co., The, Cornwall, Ont.
Bell Furniture Co., Ltd., The, Southampton, Ont.
Chesley Furniture Co., Ltd., Chesley, Ont.
Durham Furniture Co., Ltd., Durham, Ont.
Elmira Furniture Co., Ltd., Elmira, Ont.
Elora Furniture Co., The, Elora, Ont.
Harriston Furniture Mfg. Co., Harriston, Ont.
Hespeler Furniture Co., Ltd., Hespeler, Ont.
Hibner, D., Furniture Co., Ltd., Berlin, Ont.
Knechtal Furniture Co., Ltd., Hanover, Ont.
Kreiner, J., & Co., Berlin, Ont.
Krug Bros. Co., Ltd., Chesley, Ont.
Krug, The H., Furniture Co., Ltd., Berlin, Ont.
Malcolm & Souter Furniture Co., Ltd., Hamilton, Ont.
Markdale Furniture Co., Ltd., Markdale, Ont.
McLagan, The George, Furniture Co., Ltd., Stratford, Ont.
Meaford Mfg. Co., Ltd., Meaford, Ont.
National Table Co., Ltd., Owen Sound, Ont.
St. Lawrence Furniture Co. Riviere du Loup, Que.
Stratford Chair Co., Stratford, Ont.
Strathroy Furniture Co., Ltd., Strathroy, Ont.
Toronto Furniture Co., Ltd., Toronto, Ont.
Woeller, Bolduc & Co., Waterloo, Ont.

TABLES, Reed and Rattan.

Canada Furniture Mfrs., Ltd., Woodstock, Ont.

TABLETS, Medicinal.

Frosst, Chas. E., & Co., Montreal, Que.
Horner, F. W., Ltd., Montreal, Que.
Lewis, A. H., Medicine Co., Smith's Falls, Ont.
Parke, Davis & Co., Walkerton, Ont.
Saunders, W. E., & Company, London, Ont
Stearns, Frederick, & Co. of Canada, Ltd., Windsor, Ont.
Wampole, Henry K., & Co., Ltd., Perth, Ont.
Wells & Richardson Co., Ltd., The, Montreal,
World's Dispensary Association, Bridgeburg, Ont.

TABLETS, Memorial.

Booth, G., & Son, Toronto, Ont.
Cummings Brass, Iron & Wire Co., Ltd., Winnipeg, Man.
Mitchel, The Robt., Co., Ltd., Montreal, Que.
Patterson & Heward, Toronto, Ont.
Tuttle & Bailey Mfg. Co., Bridgeburg, Ont.
Walker & Campbell, Montreal, Que.

TACAMAHACA, resin obtained from a tree which grows in the East Indies, Madagascar and Bourbon, and in the French West Indies and Porto Rico, also yields a similar resin.

TACKS, small broad-headed nails. They are made up in packets of 1,000, and a three oz. packet contains tacks ⅜ in. long; a four oz. packet contains tacks 7-16 in. long, &c., while the largest are 1¼ in. long in twenty-four oz. packets.

TACKS.

Consolidated Hardware Mfg. Co., Ltd., Hamilton, Ont.
Dominion Tack & Nail Co., Ltd., Galt, Ont.
Morrisburg Tack Mfg. Co., Ltd., Morrisburg, Ont.
Peck Rolling Mills, Ltd., The, Montreal, Que.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.

TACKS and NAILS, Shoe.

Dominion Tack & Nail Co., Ltd., The, Galt, Ont.
Graham Nail Works, The, Toronto, Ont.
Laidlaw Bale-Tie Co., Ltd., Hamilton, Ont.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.
United Shoe Machinery Co. of Canada, Ltd., Montreal, Que.

TAFFETA, a name now applied to all kinds of plain silk and even to some combinations of silk and wool, &c.

TAGGERS, thin iron plates, sometimes tinned.

TAGS, Dog and Metal.

Banfield, W. H., & Sons, Toronto, Ont.

TAGS, Shipping, Factory, Etc.

Burt, F. N., Co., Ltd., Toronto, Ont.
Business Systems, Ltd., Toronto, Ont.
Reason, H. T., & Co., London, Ont.
Southam Press, Ltd., Montreal, Que.
Wilson, J. C., Ltd., Montreal, Que.

TAGS, Tobacco.

American Can Co., Montreal, Que.
Macdonald Mfg. Co., Ltd., Toronto, Ont.

TALC, magnesium silicate, found chiefly in Tyrol, Syria, and Switzerland, and in North America. It occurs in lamina or in a fibrous form, and is used as a polishing material, and in the manufacture of rouge. Steatite or soapstone is a massive variety known as French chalk or Briancon chalk. It is used for removing spots from cloth, and other purposes to which fibrous talc is applied, and also by tailors and glaziers, being sometimes made into pencils. Enstatite, another form, is fibrous, and is mixed with wood pulp in the manufacture of paper. There are many known deposits of talc and soap stone in Canada, but only those of Eastern Ontario are being worked to any extent. The most important producers are those in the neighborhood of Madoc, Hastings County, from which about 10,000 tons of a very fine quality of talc is being mined, melted and shipped annually.

TALC.

Geo. H. Gillespie & Co., Madoc, Ont.

TALKING MACHINES.

Berliner Gramophone Co., Ltd., Montreal, Que.
Columbia Graphophone Co., Toronto, Ont.

TALLOW, the melted fat of animals, chiefly cattle and sheep. From the United States the export is very large, but has lately fallen to about 35 million pounds. Australia, Argentina, and Russia also export large amounts. Tallow is used in the manufacture of candles and soap, in dressing leather, and as a lubricant. Tallow oil, the oleine which remains after the stearine has been removed, is used as a lubricant, and in the manufacture of margarine.

TALLOW.

Carter, E. T., & Co., Toronto, Ont.
Freeman, The W. A., Co., Ltd., Hamilton, Ont
Harris Abattoir Co., Ltd., The, Toronto, Ont.
Harris, W., & Co., Toronto, Ont.
Kimble, John, & Son Ltd., St. John, N.B.
Lawrason, S. F., & Co., London, Ont.
Marquis, F. Canac, Quebec, Que.
Stone, Wm., Sons, Ltd., Woodstock, Ont.
Thorntons, Ltd., Brantford, Ont.
Western Packing Co., of Canada, Ltd., Winnipeg.

TALLOW TREE.—This name is given to several trees which have a tallow-like substance enveloping their seeds, such as the East Indian copal, and Stillingia sebifera, from which candles are made in China, and which has been introduced into the West Indies. The name is also given in North America to a candleberry.

TAMARACK.—There are two species of this tree in Canada, one in the East and one in British Columbia. The Western tamarack is of commercial importance locally, but is not shipped East. The wood of the tamarack is used to a small extent for lumber, but more for ties and poles. It is also used to some extent for boats, pumps and tanks. (See WOOD).

TAMARIND, the pods of a leguminous tree now cultivated in almost all warm climates, contain a pleasant acidulous pulp, which is a refrigerant and gentle laxative. The fruit is removed from the pod and kneaded into a paste. The best tamarinds are exported from the West Indies preserved in syrup. The inferior kinds, from Egypt and the East, are used in sauces. A similar pulp is produced by the tamarind plum of India, and by species of Codarium in Sierra Leone. The wood of the tamarind is very beautiful, but extremely hard.

TAMPICO FIBRE, a fibre obtained from the leaves of the yucca, and named after the port Tampico in Mexico.

TANEKAHA BARK, the bark of a New Zealand conifer, used for tanning and dyeing glove leather.

TANKS, Acid Storage (Steel.)

Toronto Iron Works, Ltd., Toronto, Ont.

TANKS, Auto.

Dominion Stamping Co., Ltd., Walkerville, Ont.
Fairgrieve Metal & Stamping Co., Toronto, Ont.
Galt Art Metal Co., Ltd., The, Galt, Ont.
Prest-O-Lite Co., The, Toronto, Ont.

TANKS, Blow-Off.

Darling Bros., Ltd., Montreal, Que.
Inglis, The John Co., Ltd., Toronto, Ont.

TANKS, Copper Storage.

Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Granby Hardware Mfg. Co., Granby, Que.

TANKS, Expansion.

Fairgrieve Metal & Stamping Co., Toronto, Ont.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Wheeler & Bain, Toronto, Ont.

TANKS, Fire Bucket.

General Fire Equipment Co., Ltd., The, Toronto, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont
Ormsby, A. B., Co., Ltd., Toronto, Ont.
Wright, E. T., & Co., Hamilton, Ont.

TANKS, Gasoline.

Canadian Corrugated Pipe Co., Ltd., Portage la Prairie, Man.
Prest-O-Lite Co., Toronto, Ont.
Reed, Geo. W., & Co., Ltd., Montreal, Que.
Steel Trough & Machine Co., Ltd., The, Tweed, Ont.
Winnipeg Steel Granary & Culvert Co., Ltd., Winnipeg, Man.

TANKS, Grain.

Gregg Mfg. Co., Ltd., Winnipeg, Man.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Tudhope-Anderson Co., Ltd., Orillia, Ont.
Toronto Iron Works, Ltd., Toronto, Ont.
Winnipeg Ceiling & Roofing Co., Winnipeg, Man.

TANKS, Lead Lined, for Chemical and Soap Works.

Fiddes & Hogarth, Ltd., Toronto, Ont.

TANKS, Oil.

Bowser, S. F., & Co., Toronto, Ont.
Davidson, The Thos., Mfg. Co., Ltd., Montreal.
Fiddes & Hogarth, Ltd., Toronto, Ont.
Grimm Mfg. Co., Ltd., The, Montreal, Que.
Inglis, The John Co., Ltd., Toronto, Ont.
Markwell Mfg. Co., Ltd., Winnipeg, Man.
Marsh & Henthorn, Ltd., Belleville, Ont.
National Equipment Co., Ltd., Toronto, Ont.
Piper, The Hiram L., Co., Ltd., Montreal, Que.
Selby & Youlden, Ltd., Kingston, Ont.
Toronto Iron Works, Ltd., Toronto, Ont.
Windsor Boiler Works, Windsor, Ont.

TANKS, Portable.

Waterous Engine Works Co., Ltd., Brantford,
Windsor Boiler Works, Windsor, Ont.

TANKS, Steel. (See also Stand Pipes.)

Bell, The Robt., Engine & Thresher Co., Ltd., Seaforth, Ont.
Bruce Agricultural Works, The, Teeswater, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Metal Shelter Co., Winnipeg, Man.
Corbet Foundry Co., The, Owen Sound, Ont.
Corrugated Pipe Co., Ltd., The, Stratford, Ont.
Collingwood Shipbuilding Co., Ltd., Collingwood, Ont.
Crescent Machine Co., Ltd., Montreal, Que.
Dominion Supply Co., Ltd., The, Cargill, Ont.
Evans, Nathaniel, Ltd., Dartmouth, N.S.
Farand & Delorme, Ltd., Montreal, Que.
Fleming, James, St. John, N.B.
Goldie & McCulloch, Ltd., The, Galt, Ont.
Greening, The B., Wire Co., Ltd., Hamilton, Ont.
Hamilton, Wm. Co., Ltd., Peterborough, Ont.
Heller-Aller Co., Ltd., Windsor, Ont.
Hunter Bridge & Boiler Co., Ltd., Kincardine, Ont.
International Marine Signal Co., Ltd., Ottawa, Ont.
Inglis, The John Co., Ltd., Toronto, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Leonard, E., & Sons, London, Ont.
McDonald Godson, The, Co., Ltd., Vancouver, B.C.
McKay, Alexander, Montreal, Que.
MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.
Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
Marine Iron Works, Victoria, B.C.
Marsh & Henthorn, Ltd., Belleville, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
McDougall, The John, Caledonian Iron Works, Co., Ltd., Montreal, Que.
National Equipment Co., Ltd., Toronto, Ont.
Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
Owen Sound Iron Works Co., Ltd., Owen Sound, Ont.
Plant, W. P., Hastings, Ont.
Plessisville, Foundry Co., Ltd., The, Plessisville, Ont.
Polson Iron Works, Ltd., Toronto, Ont.
Powers, P. J., Ltd., Ottawa, Ont.
Rockwood Sprinkler Co., of Canada, Ltd., The, Montreal, Que.
Selby & Youlden, Ltd., Kingston, Ont.
Steel Trough & Machine Co., Ltd., Tweed, Ont.
Stevenson Boiler & Engine Works, Petrolia, Ont.
Structural Steel Co., Ltd., Montreal, Que.
Sudbury Construction & Machinery Co., Ltd., The, Sudbury, Ont.
Thor Iron Works, Ltd., Toronto, Ont.
Toronto Iron Works, Ltd., Toronto, Ont.
Union Foundry & Machine Works, Ltd., St. John, N.B.
Waterous Engine Works Co., Ltd., Brantford, Ont.
Western Dry Dock & Shipbuilding Co., Ltd., Port Arthur, Ont.
Western Steel & Iron Co., Ltd., Winnipeg, Man.
Wheeler & Bain, Toronto, Ont.
White, W. C., Boiler Works, Montreal, Que.
Windsor Boiler Works, Windsor, Ont.
Woodstock Wind Motor Co., Ltd., Woodstock, Ont.

TANKS, Wagon, Steel or Wood.

Arnett Furniture, Ltd., Souris, Man.
Canadian Corugated Pipe Co., Ltd., Portage la Prairie, Man.
Steel Trough & Machine Co., Ltd., Tweed, Ont.

TANKS, Water Closet.

Beach, The M. F., Co., Ltd., Winchester, Ont.
B. O. T. Mfg. Co., Ltd., The, Toronto, Ont
Cuthbert, W. R., & Co., Montreal, Que.
Goderich Organ Co., Ltd., Goderich, Ont.
Hourd & Co. Ltd. London, Ont.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

Paquet & Godbout, St. Hyacinthe, Que.
Standard Sanitary Mfg. Co., Ltd., Toronto, Ont.
Smart, The Jas, Mfg. Co., Ltd., Brockville, Ont.
Toronto Hardware Mfg. Co., Ltd., Toronto, Ont.
United Brass & Lead, Ltd., Toronto, Ont.
Windsor Furniture Co., Ltd., Windsor, N.S.

TANKS, Wood.

Anglin, S., & Co., Kingston, Ont.
Arnett Furniture, Ltd., Souris Man.
Ball Planing Mill Co. Ltd., Barrie, Ont.
Butcher, F. E., St. Mary's, Ont.
Carkner, D., & Co., Kenmore, Ont.
Clark, W. H., & Co., Ltd. Edmonton Alta.
Dominion Supply Co. Ltd., The, Cargill, Ont.
Edwards, W. C., & Co., Ltd., Ottawa, Ont.
Goold, Shapley, & Muir Co.' Ltd., Brantford, Ont.
Green, The G. Walter, Co., Ltd., Peterborough, Ont.
Landreville, J., & Son, Toronto, Ont.
Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
Ontario Wood Pump Co., Shakespeare, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Woodstock Wind Motor Co., Ltd., Woodstock, Ont.

TANNERS' SUPPLIES.

Atteaux Dyestuff & Chemical Co., Ltd., Toronto, Ont.
Carter, E. T., & Co., Toronto, Ont.
Grassell Chemical Co. Ltd., Hamilton, Ont.
Millerton Extract Co. Ltd., Millerton, N.B.
Sovereign Soaps & Chemicals, Ltd., Toronto,

TANNING EXTRACTS.—Extracts from tanning barks are manufactured in several countries and exported and sold in place of the more cumbrous bark, such as extracts from the wattle-barks of Australia, quercitron, Campeachy wood, &c. **(See also BARK).**

TAPA.—Cloth made in the Pacific Islands from the fibre of Broussonetia papyrifera. **(See MULBERRY).**

TAPE, Electrical.

Canadian Consolidated Rubber Co., Ltd., Montreal Que.
Standard Paint Co. of Canada Ltd., Montreal.
Walpole Rubber Co., Ltd., Montreal, Que.

TAPE, Rubber, Friction, and Splicing.

Dunlop Tire & Rubber Goods Co., Ltd., Toronto.

TAPERS.

Baillargeon, F., St. Constant, Que.
Lasmier, J. B., Levis, Que.

TAPES, Cotton.

Belding-Paul-Corticelli, Ltd., Montreal, Que.
Canada Label & Webbing Co., Ltd., Toronto.

TAPES, Measuring.

Lufkin Rule Co., of Canada, Ltd., The, Windsor, Ont.

TAPES, Silk.

Belding-Paul-Corticelli, Ltd., Montreal, Que.

TAPESTRIES.

Guelph Carpet Mills Co., Ltd., The, Guelph, Ont.

TAPIOCA, a farinaceous substance obtained from the root of the cassava or manioc. It is made from Brazilian arrowroot by heating the arrowroot on hot plates, when some of the starch grains burst and are converted into dextrine. **(See also CASSAVA).**

TAPS, Soda Water.

Fletcher Mfg. Co., Ltd., Toronto, Ont.

TAPS AND DIES. (Thread-cutting, Pipe, Etc.)

Armstrong, Mervin, Toronto, Ont.
Butterfield & Co., Rock Island, Que.
Banfield, W. H., & Sons, Toronto, Ont.
Canada Tool & Specialty Co., Ltd., New Glasgow, N.S.
Canada Tap & Die Co., Ltd., Galt, Ont.
Jardine, A. B., & Co., Hespeler Ont.
Pratt & Whitney Co. of Canada, Ltd., Dundas, Ont.

TAPS, Wooden.

Canadian Cork Cutting Co., Montreal, Que.

TAR.—Tar is the insoluble residue from the distillation of wood, coal, or shale. Wood-tar, produced in Europe chiefly from the Scotch fir, contains wood-spirit, creasote, and naphtha, &c., as well as heavy oils. Coal-tar contains a large proportion of benzol and colouring matter, and yields aniline dyes, alizarine, and medicinal substances. It is produced chiefly in the manufacture of gas.

TAR, Refined.

Carritte, de B., St. John, N.B.
Dominion Tar & Ammonia Co., Ltd., Hamilton, Ont.
Dominion Tar & Chemical Co., Ltd., Montreal.
Hamilton Tar Distilling Co., The, Hamilton, Ont.
McArthur, Alex., & Co., Ltd., Montreal, Que.
McComb, J. H., Ltd., Montreal, Que.

TARES, a leguminous plant nearly allied to the vetches, which is cultivated in some parts of Europe as cattle fodder. Vetches and tares are included under lentils (a species of tare) in trade returns.

TARPAULIN, a strong linen or hempen cloth rendered waterproof by a coating of stearine or bone-tar pitch.

TARPAULINS.

Bromley & Hague Ltd., Winnipeg, Man.
Creaser, J. F., Co., Ltd., La Have, N.S.
Edmonton Tent & Mattress Co., Ltd., Edmonton, Alta.
Gourock Ropwork Export Co., Ltd., Montreal.
Hopkins Mfg. Co., Ltd., The, Toronto, Ont.
Sonne, Thomas Sr. Montreal, Que.
MacKenzie, Ltd., Ottawa, Ont.
May, J., & Co., Winnipeg, Man.
Montreal Tent Awning & Tarpaulin Co., Montreal, Que.
Rudd, Geo. A., & Co., Ltd., Toronto, Ont.
Smart-Woods, Ltd., Ottawa, Ont., and Winnipeg, Man.
Soper, Robt., Hamilton, Ont.
Tower Canadian, Ltd., Toronto, Ont.
Turner, Beeton & Co., Ltd., Victoria, B.C.
Turner, J. J. & Sons Peterborough, Ont.

TARRAGON. (See WORMWOOD).

TARTAR, CREAM OF, refined bitartrate of potash, taken medicinally and used as a baking powder. **(See ARGOL).**

TARTAR EMETIC. (See ANTIMONY).

TARTARIC ACID, obtained from argol or tartar. It is used in dyeing and calico-printing, and in the manufacture of aerated waters.

TAXICABS, Motor.

Watson Carriage Co., Ltd., Ottawa, Ont.

T. CLOTHS, stout unbleached cotton cloths, largely exported to China.

TEA is the leaf and buds of the tea-plant which grows in tropical and sub-tropical climates. In Japan it is cultivated up to latitude 40 degrees north. An acre of tea-plants will yield 300 to 500 pounds of tea. The best quality of black tea is made from the buds. Green tea which is dried before fermentation sets in, is exported chiefly to United States and Canada. Until the middle of the last century, China was the source of almost all the tea consumed, Japan contributing but a small quantity. In the thirties, however, the discovery of the tea-plant in Assam led to the cultivation of tea in India and in 1841 the first sale of Indian tea was held in London. Since when the exports have steadily and rapidly increased. From there it spread to Ceylon.

TEA.

Blue Ribbon, Ltd., Winnipeg, Man.
Braid, Wm., & Co., Vancouver, B.C.
Codville Co., Ltd. The, Winnipeg Man.
De Forest, H. W., St. John, N.B.
Dominion Coffee & Spice Mills Co., Montreal.
Estabrooks, T. H., Co., Ltd., St. John, N.B.
Eby-Blain Ltd., Toronto, Ont.
Empress Mfg. Co., Ltd., Vancouver, B.C.
Ewing, S. H., & Sons, Montreal, Que.
Herron Le Blanc Ltd., Montreal, Que.
National Coffee and Spice Co., Montreal, Que.
Salada Tea Co., Toronto, Ont.

TEAK, a tree of the order Verbenaceæ, which grows in India, Burma, and Siam, Java, and other islands of the Malay Archipelago. The wood is fairly hard, and is used in shipbuilding, and the armour-plates of ships-of-war are backed with it, as it contains some ingredient which prevents iron in contact with it from rusting. The bark is used in tanning, and the leaves yield a purple-red dye. African teak is also a good timber, though not equal to the East Indian.

TEASEL, a half shrubby plant, is cultivated in many European countries, and in Somerset and Yorkshire. The thorny heads, cut off when the plant is in flower, are used to raise the nap on cloth, no mechanical contrivance hitherto invented answering the purpose so well.

TECHNICAL PAPERS.

Industrial & Educational Press, Ltd., Montreal.
Industrial & Technical Press, Ltd., Toronto.
MacLean Publishing Co., Ltd., Toronto, Ont.

TEE SQUARES.

Dietzgen, Eugene, Co., of Ontario, Ltd., Toronto, Ont.
Hughes, Owens, Co., Ltd., The, Montreal, Que.

TEETH Dredge Bucket.

Hamilton Wm., Co., Ltd., Peterborough, Ont.
Matheson, I., & Co., Ltd. New Glasgow N.S.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.

TEETH, Harrow.

Bailey-Underwood Co., Ltd., New Glasgow, N.S.
Belanger, A. Montmagny, Que.
Coghlin, B. J., Co. Ltd., Montreal Que.

TEETH, Rake.

Bailey-Underwood Co., Ltd., New Glasgow, N.S.
Coghlin, B. J., Co. Ltd., Montreal Que.

TEETH SETTINGS, Diamond for Stone Saws.

Anderson, Geo., & Co. of Canada, Ltd., Montreal. Que.

TEETH, Thresher.

McFarlane, Neill Mfg. Co., Ltd., The, St. Mary's N.B.
Whitman & Barnes Mfg. Co., St. Catharines, Ont.

TELEPHONES.

Canadian Machine Telephone Co., Ltd., Toronto.
Forman, John, Montreal, Que.
Jones & Moore Electric Co., Ltd., Toronto, Ont.
Northern Electric & Mfg. Co., Ltd., Montreal.
Starr, John, Son & Co., Ltd., Halifax, N.S.
Wilhelm Telephone Mfg. Co. Dunnville, Ont.

TELESCOPES.

Gowland Optical Co., Ltd., Montreal.

TENTS.

Alberta Saddlery Co., Ltd., Lethbridge, Alta.
Bromley & Hague, Ltd., Winnipeg, Man.
Dixon Mfg. Co., The Calgary Alta.
Edmonton Tent & Mattress Co., Ltd., Edmonton, Alta.
Finnie & Murray, Winnipeg, Man.
Grant, Holden & Graham, Ottawa, Ont.
Hopkins Mfg. Co., Ltd., The, Toronto, Ont.
Lipsett, Edward, Vancouver, B.C.
May J. & Co., Winnipeg, Man.
MacKenzie, Ltd., Ottawa Ont.
Montreal Tent & Tarpaulin Co., Montreal, Que.
Merchants Awning Co., Ltd., Montreal, Que.
Pike, The D., Co., Ltd., Toronto, Ont.
Smart-Woods Ltd., Ottawa, Ont., and Winnipeg, Man.
Soper, Robt., Hamilton, Ont.
Stamco, Ltd., Saskatoon, Sask.
Turner, J. J., & Sons, Peterborough, Ont.
Western Tent & Mattress Co. Calgary, Alta.
Western King Mfg. Co., Ltd., Winnipeg, Man.

TENERIFFE, a dry wine exported from the island of Teneriffe.

TENT, a rich wine of Cadiz, Spain.

TEREBENE. (See **TURPENTINE**).

TEREBENTHINE.—French oil of turpentine distilled from Pinus maritima and other conifers.

TERNE PLATES. (See **TIN PLATES**).

TERRA ALBA.

Crown Gypsum Co., Ltd., Lythmore, Ont.

TERRA-COTTA, baked clay, buff, yellow or red; used in buildings, and moulded into various decorations.

TERRA COTTA, Architectural.

Montreal Terra Cotta Lumber Co., Ltd., Montreal, Que.
Toronto Pressed Brick & Terra Cotta Works, Milton, Ont.

TERRA COTTA, Structural.

Crandell, E. H., Pressed Brick & Sandstone Co., Calgary, Alta.
National Fire Proofing Co. of Canada, Ltd., Toronto, Ont.
Nova Scotia Clay Works, Ltd., Halifax, N.S.

TERRA JAPONICA.—A name still given in commerce to Cutch and Gambir.

TERRAPIN. (See **TURTLES**).

TEXTILE MACHINERY.—The manufacture of textile machinery in Canada has received very little attention from machine builders with the result that practically all of the equipment necessary for the making of textiles has to be imported. With the exception of a few styles of knitting machines, winders and wet finishing machines for knitted and woollen goods this class of machinery is practically all imported from the United Kingdom and United States.

THERMIT.

Goldschmidt-Thermit Co., Toronto, Ont.

THERMOMETERS, Bakers', Steam and Hot Water.

Fletcher Mfg. Co., Ltd., Toronto, Ont.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

THERMOS PRODUCTS.

Thermos Bottle Co., Ltd., Toronto, Ont.

THORIANITE and **THORITE.**—Two minerals lately discovered in Ceylon, containing a large proportion of thoria, which is used in the manufacture of gas mantles.

THORN-APPLE. (See **STRAMONIUM**).

THREAD, Cotton Sewing.

Bell Thread Co., Ltd., The, Hamilton, Ont.
Canadian Spool Cotton Co., The, Montreal, Que.
Canada's Thread Mills, Ltd., Toronto, Ont.
Cotton Threads, Ltd., Montreal Que.

THREAD, Silk.

Belding-Paul-Corticelli, Ltd., Montreal, Que.
The Independent Silk Co.. Ltd., Montreal, Que.
Oriental Silk Co., Ltd., Montreal, Que.

THRESHING MACHINES. (See Machines, Threshing.)

THUS.—Turpentine gum as picked from the tree.

THYMOL.—The common thyme and the wild thyme both yield an oil from which thymol, an antiseptic phenol, is obtained by distillation. Large quantities of thymol are manufactured from ajowan seeds.

TICKINGS. (See Cottons.)

TIE PLATES.

Coghlin, B. J., Co., Ltd., Montreal, Que.
Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.

TIES, Bale, Wire. (See Bale-Ties, Wire.)

TIES, SCARFS, TOQUES, SASHES, ETC.

Vancouver Knitting Co., Vancouver, B.C.
Columbia Knitting Mills, Vancouver, B.C.
Stobarts, Ltd., Winnipeg, Man.
Best-Knit, Ltd., Brampton, Ont.
Monarch Knitting Co., Dunnville, Ont.
Colonial Knitting Co., Guelph, Ont.
Royal Knitting Co., Guelph, Ont.
R. Forbes Co., Hespeler, Ont.
Sibauss & McLearnen, Hespeler, Ont.
Perfect-Knit Mills, Ltd., Listowel, Ont.
A. Burritt & Co., Mitchell, Ont.
Penman's, Ltd., Paris, Ont.
R. M. Ballantyne, Ltd., Stratford, Ont.
Avon Hosiery Co., Stratford, Ont.
Olympic Mfg. Co., Toronto, Ont.
A. T. Reid & Co., Toronto, Ont.
Frank Robinson, Ltd., Toronto, Ont.
Scott Knitting Co., Toronto, Ont.
Sterling Neckwear Co., Toronto, Ont.
Reiner Bros. & Co., Wellesley, Ont.
Harney Knitting Co., Woodstock, Ont.
Knit-to-Fit Mfg. Co., Montreal, Que.
Perfect-Fit Mfg. Co., Montreal, Que.

TIES, Railway.

Adams, Burns Co., Ltd., Bathurst, N.B.
Austin & Nicholson, Chapleau, Ont.
Bathurst Lumber Co., Ltd., Bathurst Village, N.B.
Cameron Lumber Co., Victoria, B.C.
Carew, John, Lumber Co., Ltd., Lindsay, Ont.
Cascapedia Mfg. & Trading Co., Chaleurs, Que.
Chaleur Bay Mills, Restigouche, Que.
Chandler & Jones Lumber Co., Snow Road, Ont.
Columbia River Lumber Co., Ltd., Golden, B.C.
Crockett, Thos., Riviere du Loup, Que.
Crothers Lumber Co., Ltd., Cranbrook, B.C.
Crow's Nest Pass Lumber Co., Ltd., Wardner, B.C.
Dalhousie Lumber Co., Ltd., The, Dalhousie, N.B.
East Kootenay Lumber Co., Ltd., Jaffray, B.C.
Edwards, W. C., & Co., Ltd., Ottawa, Ont.
Fenderson, John & Co. Inc., Sayabec, Que.
Grier, G. S., & Sons, Ltd., Montreal, Que.
Harrison, John, & Sons, Co., Ltd. Owen Sound, Ont.
Harris Tie & Lumber Co., Ottawa, Ont.
Hickman, C. P., Dorchester, N.B.
Jewell Lumber Co., Ltd., Hanbury, B.C.
Johnston, Hunter & Crawford, Wiarton, Ont.
Joly de Lotbiniere, A., Leclercville, Que.
Keenan Bros., Ltd., Owen Sound, Ont.
Keewatin Lumber Co., Ltd., Keewatin, Ont.
King Lumber Mills Co., Ltd., Cranbrook, B.C.
Leigh & Sons, Jas., Victoria, B.C.
Manitoulin Lumber Co., Ltd., Walkerville, Ont.
Metis Lumber Co., The, Price, Que.
Monarch Lumber Co., Savona, B.C.
Moresby Island Lumber Co., Ltd., Skidgate, B.C.
North Star Lumber Co., Elko, B.C.
Otis Staples Lumber Co., Ltd., Wycliffe, B.C.
Parrsboro Lumber Co., Parrsboro, N.S.
Pearce Co., Ltd., The, Marmora, Ont.
Price Bros. & Co., Ltd., Quebec, Que.
Pugh & Livingstone Lumber Co., Ltd., Dorr, B.C.
Rat Portgae Lumber Co., Ltd., Kenora, Ont.
Rathbun Co., The, Deseronto, Ont.
Richardson, Jas., Co., Ltd., Matane, Que.
Riordon Pulp & Paper Co. Ltd., Montreal, Que.
Ritchie, D. & J., Co., Newcastle, N.B.
Shawinigan Lake Lumber Co., Ltd., The, Victoria, B.C.
Shevlin Clark Co., Ltd., Fort Frances, Ont.
Shives Lumber Co., Campbellton, N.B.
Snowball, The J. B., Co., Ltd., Chatham, N.B.
Swedish Canadian Lumber Co., Ltd., Nordin, N.B.
Taylor Mill Co Ltd., Victoria, B.C.
Trenholme, T. A., Montreal, Que.
Winnipeg Lumber Co., Winnipeg, Man.

TIES, Railway, Creosoted.

Canada Creosoting Co., Ltd., Toronto, Ont.
Dominion Creosoting Co., Ltd., South Vancouver, B.C.

TIGER-WOOD, the beautifully grained heartwood of a tree of British Guiana.

TIL. (See **SESAME**).

TILE, Concrete Sewer.

Bedell, H. W., Picton, Ont.
Brick & Tile Co. of Canada, Inc., Montreal, Que.

Canfield, F. O., St. Mary's, Ont.
Cement Products Co., Quebec, Que.
Cement Products, Ltd., Toronto, Ont.
Dominion Concrete Co., Ltd., The, Kemptville, Ont.
Dominion Glazed Cement Pipe Co., Ltd., Vancouver, B.C.
Excelsior Brick Co., Ltd., Toronto, Ont.
Ideal Concerte Machinery Co., Ltd., London, Ont.
National Builders' Supply & Enamel Concrete Brick Co., Ltd., Montreal, Que.
Perfection Concrete Co., Ltd., Winnipeg, Man.
Raymond Cement Products Co., Ltd., Montreal.

TILE, Drain.

Alberta Clay Products Co., Ltd., Medicine Hat, Alta.
Alsip Brick, Tile & Lumber Co., Ltd., Winnipeg, Man.
Bedell, H. W., Picton, Ont.
Canfield, F. O., St. Mary's, Ont.
Clayburn Co., Ltd., The, Vancouver, B.C.
Consolidated Clay Works, Ltd., Picton, N.S.
Excelsior Brick Co., Ltd., Toronto, Ont.
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Ideal Concerte Machinery Co., Ltd., London, Ont.
Jamieson Lime Co., The, Renfrew, Ont.
Nova Scotia Clay Works, Ltd., Halifax N.S.
Oakville Pressed Brick Co., The, Oakville, Ont.
Port Haney Brick Co., Port Haney, B.C.
Raymond Cement Products Co., Ltd., Montreal.
Superior Brick Co., Ltd., The, Fort William, Ont.
Victoria Brick & Tile Co., Ltd., Victoria, B.C.

TILE, Hollow, Structural.

Alsip Brick, Tile & Lumber Co., Ltd., Winnipeg, Man.
Crandell, E. H., Pressed Brick & Sandstone Co., Calgary, Alta.
Don Valley Brick Works, Toronto, Ont.
Montreal Concrete Tile, Ltd., Montreal, Que.
National Fire Proofing Co. of Canada, Ltd., Toronto, Ont.
Nova Scotia Clay Works, Ltd., Halifax N.S.
Redcliff Brick & Coal Co., Ltd., Redcliff, Alta.
Sidney Brick & Tile Co., Ltd., Winnipeg, Man.
Superior Brick Co., Ltd., The, Fort William, Ont.

TILE, Marble.

Dominion Marble Co., Ltd., Montreal, Que.
Hackney Tile & Supply Co., Ltd., Winnipeg, Man.
Hooper's Marble & Granite Co., Ltd., Winnipeg, Man.
Marble & Tile Co. of Canada, Ltd., Winnipeg, Man.
Mariotti Marble Co., Montreal, Que.
Middleton Marble & Granite Co., The, Hamilton, Ont.
Reid, Robert, Montreal, Que.

TILE, Mantel and Flooring.

Alabastine Co., Ltd., Paris, Ont.
Brick & Tile Co. of Canada, Inc., Montreal, Que.
Concrete Products, Ltd., Calgary, Alta.
Canadian Enamel Concrete Brick & Tile Co., Winnipeg, Man.
Canada Glass Mantels & Tiles, Ltd., Toronto.
Hooper's Marble & Granite Co., Ltd., Winnipeg, Man.
Mariotti Marble Co., Montreal, Que.
Montreal Terra Cotta Lumber Co., Ltd., Montreal, Que.
Middleton Marble & Granite Co., The, Hamilton, Ont.
Reid, Robert, Montreal, Que.
St. Johns Brick Co., St. Johns, Que.
Smith Marble & Construction Co., Ltd., Montreal.

TILE, Metal.

Metal Shingle & Siding Co., Ltd., Toronto, Ont.
Metallic Roofing Co. of Canada, Ltd., Toronto.
Pedlar People, Ltd., The, Oshawa, Ont.

TILE, Partition.

Clayburn Co., Ltd., The, Vancouver, B.C.
Crown Gypsum Co., Ltd., Lythmore, Ont.
Port Haney Brick Co., Port Haney, B.C.

TILE, Roofing, Interlocking.

Concrete Products, Ltd., Calgary, Alta.
Ideal Concerte Machinery Co., Ltd., London, Ont.
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Montreal Terra Cotta Lumber Co., Ltd., Montreal, Que.

TILE, Sewer, Salt Glazed and Vitrified.

Alberta Clay Products Co., Ltd., Medicine Hat, Alta.
Alberta Sewer Pipe Co., Ltd., Calgary, Alta.
British Columbia Pottery Co., Ltd., Victoria, B.C.
Dominion Sewer Pipe Co., Ltd., Swansea, Ont.
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Ontario Sewer Pipe Co., Ltd., The, Mimico.
Consolidated Clay Works, Ltd., Pictou N.S.
Vitrolite Construction Co. of Manitoba, Winnipeg, Man.

TILE, Wall Furring and Lining, Column and Girder Covering.

Alberta Clay Products Co., Ltd., Medicine Hat, Alta.
Don Valley Brick Works, Toronto, Ont.
Excelsior Brick Co., Ltd., Toronto, Ont.
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Montreal Concrete Tile, Ltd., Montreal, Que.
Montreal Terra Cotta Lumber Co., Ltd., Montreal, Que.
National Fire Proofing Co. of Canada, Ltd., Toronto, Ont.
Nova Scotia Clay Works, Ltd., Halifax N.S.
Redcliff Brick & Coal Co., Ltd., Redcliff, Alta.
Vitrolite Construction Co. of Manitoba, Winnipeg, Man.

TILE-FISH, a deep-sea tropical fish which frequently appears off the Atlantic coast of the United States and may become an important table fish.

TILES.—Besides the ordinary clay tiles for roofing, decorative tiles are made for walls, hearths, &c. Encaustic tiles in which the pattern is made with clay powder and pressed into the body of the tile are made in the Staffordshire potteries.

TILING, Cork.

Robinson Bros. Cork Co., Ltd., Toronto, Ont.

TILING, Glass, Wall.

Canada Glass Mantels & Tiles, Ltd., Toronto.
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.

TILING, Rubber, Inlaid and Wall.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
Gutta Percha & Rubber Co., Ltd., Toronto, Ont.

TILING, Woodpulp.

Beaver Co., Ltd., Ottawa, Ont.
Grenville Board & Pulp Co., Ltd., Thorold, Ont.

TIMBER. (See **WOOD**).

TIMBER, Dimension. (See Lumber.)

TIME RECORDERS AND DETECTORS. (See Recorders, Time.)

TIMOTHY SEED, the seed of the forage grass which is very extensively cultivated in the United States and Canada. About 15 million pounds are exported in the year.

TIN.—This white metal is somewhat rare. It seldom, if ever, occurs native, but is generally found in the form of cassiterite or binoxide. Tin now comes chiefly from the East, the Malay Peninsula, Banca, and Billiton in the Dutch East Indies. Australia and Tasmania and Cornwall yield ore, and a little is mined in Saxony, Bohemia, and the United States, and a certain quantity in Durango, Mexico. The production of China is said to be large, but it is consumed entirely at home. In the last ten years the output of tin has increased by fully 25 per cent., but the consumption has increased still more, and the stocks have fallen very low. The high price has led to the reopening of some Cornish mines, and the Transvaal may yield large quantities. In the meantime, however, very high prices are expected. Wood tin or fibrous tin occurs in small masses in the rock, and stream tin is the name given to it when found in alluvial deposits. Tin is chiefly used in alloys and amalgams, and in coating other metals. (See **TIN PLATE**).

TIN, Chloride and Bi-Chloride of.

Cowan, John, & Co., Ltd., Montreal, Que.
Nichols Chemical Co., of Canada Ltd., Montreal.

TIN, Pig and Phosphor.

Canada Metal Co., Ltd., Toronto, Ont.
Frankel Bros., Toronto, Ont.
Tallman Brass & Metal Co., Hamilton, Ont.

TINWARE, Plain and Retinned, Stamped, Japanned and Lithographed.

Aubry, A., & Fils, Montreal, Que.
Davidson, Thos., Mfg. Co., Ltd., Montreal, Que.
Emerson & Fisher, Ltd., St. John, N.B.
Fairgrieve Metal & Stamping Co., Toronto, Ont.
Farquhar Bros., Ltd., Halifax, N.S.
Macdonald Mfg. Co., Ltd., Toronto, Ont.
McClary Mfg. Co., London, Ont.
Prowse, Geo. R., Range Co., Ltd., Montreal, Que.
Shaw & Mason, Ltd., Sydney, N.S.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont., and Winnipeg, Man.
Smith Foundry Co., Ltd., The, Fredericton, N.B.
Soren Bros., Toronto, Ont.
Thompson & Sutherland, Ltd., New Glasgow, N.S.
Wright, E. T., & Co., Hamilton, Ont.
Wyatt Can Works, The, Sutton, Que.

TINCAL.—Crude borax exported from India.

TINFOIL, is tin beaten out into very thin sheets, which are used for lining tea-chests and wrapping up confectionery, tobacco, &c. The process of manufacturing mirrors with tinfoil and mercury is little practised now.

TIN PLATES.—Sheet of iron or steel covered by dipping them in molten tin. The plates before dipping are called black plates. Sometimes instead of tin an alloy of tin and lead is used, and the plates are known as terne plates. These are used in America for roofing, and are often called roofing-plates. South Wales is a great centre of the manufacture, and used to supply most of the tin-plate of the world. Great Britain exports about 320 thousand tons of tinned plates, and fully 60 thousand of black plates. (See **TINWARE**).

TIN SALT.—Stannous chloride, manufactured for dyers and calico-printers, who use it as a mordant.

TINWARE.—Vessels for domestic use are manufactured from tin-plate. About 6 per cent. of the plates is waste, which is bought up by dealers who recover the tin by the application of dilute sulphuric acid.

TIPPLES, Coal.

Brown Machine Co., Ltd., New Glasgow, N.S.
Jeffrey Mfg. Co., Montreal, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.

TIPS, (Rubber), Crutch, Chair, Etc.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.

TIRE GUM, Rubber.

Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.

TIRES, Baby Carriage.

Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.

TIRES, Carriage and Truck (Solid Rubber.)

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
Goodyear Tire & Rubber Co. of Canada, Ltd., Toronto, Ont.
Gutta Percha & Rubber Co., Ltd., Toronto, Ont.

TIRES, Carriage, Automobile, Sulky and Bicycle (Pneumatic).

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
Goodyear Tire & Rubber Co. of Canada, Ltd., Toronto, Ont.
Gutta Percha & Rubber, Ltd., Toronto, Ont.
International Tire Co., Guelph, Ont.
Triple Lead Mfg. Co., Ltd., Winnipeg, Man.

TOASTERS, Electric.

Canadian Westinghouse Co., Ltd., Toronto, Ont.
Flexible Conduit Co., Ltd., Guelph, Ont.
National Electric Heating Co., Ltd., Toronto.

TOASTERS, Gas and Asbestos.

Collins Mfg. Co., The, Toronto, Ont.
Wright, E. T., & Co., Hamilton, Ont.

TOBACCO consists of leaves of several species of the plant Nicotiana, variously prepared for use as a narcotic. While it is principally manufactured for smoking in pipe and in the form of cigars and cigarettes, a large amount is also prepared for chewing and to a limited extent it is taken in the form of snuff.

The plant was first discovered in America where it had been uesd by the natives and from there it was introduced into Europe and thence to other parts of the world. Its use is almost universal and it is now grown in all temperate climates. The best varieties in America are grown in Cuba and the State of Virginia, U.S.A. In Canada it is grown as a field or garden crop. In the South-western part of Ontario and in the provinces of Quebec and Prince Edward Island, the domestic articles are not held in such a high favor as are those imported from Cuba or Virginia.

The plant is an annual. The seeds are sown in hotbeds about the month of March and set out in the field or garden about the month of May. The young plants are cultivated and tended in a similar manner to any other garden plant. But the flowers must not be allowed to form except in the case of a few plants intended for seed. To secure large and well developed leaves not more than eight to twelve should be left on the plant. About the month of September the leaves turn a yellowish tint and begin to droop when they are fit to be gathered.

The leaves are carefully piled in bundles and allowed to sweat and ferment. They are then dried and again moistened for shipping.

About twenty million pounds of tobacco leaf are imported into Canada annually and the domestic production amounts to about eighteen million pounds. The importations of the manufactured article in the form of cigars, cigarettes, smoking, chewing and snuff, amount to about two million dollars annually.

The world's production of tobacco in 1913—the last year for which we have returns—amounted to 2,722,190,030 pounds. The following were the principal producing countries:

United States	970,734,000
British India	450,000,000
Russia	254,668,999
Dutch East Indies	180,024,000
Austria-Hungary	160,111,642
Japan	112,430,405
Philippine Islands	101,544,736
Cuba	72,585,000
Brazil	64,788,421
Germany	58,952,951
France	35,763,021
Mexico	34,711,000
Argentine Republic	31,931,426
Santo Domingo	28,000,000
Algeria	21,000,000
Romania	20,941,275
Belgium	19,702,290
Italy	18,739,000
British South Africa	14,961,000
Bulgaria	13,227,600
Bosnia-Herzegovinia	13,227,600
Canada	12,500,000

TOBACCO FLAVORS.

Bush, W. J., & Co., (Canada), Ltd., Montreal.

TOBACCO PACKERS, Leaf.

Fortier, J. M., Ltd., Montreal, Que.
Landry, N., Montreal, Que.
Lemesurier, J., & Sons, Quebec, Que.
Payne, J. Bruce, Ltd., Granby, Que.
Walker Sons, The, Walkerville, Ont.
Wigle, Darius, Kingstville, Ont.

TOBACCO, Smoking, Cut.

Clubmen Mfg. Tobacco Co., Ltd., Montreal, Que.
Dussault Tobacco Factory Co., Ltd., Quebec Que.
Federal Cigarette & Tobacco Co., Montreal, Que.
Fortier, J. M., Ltd., Montreal, Que.
Hawkins, C. & E., Ltd., Montreal, Que.
Hickey & Nicholson Tobacco Co., Ltd., Charlottetown, P.E.I.
Honsinger, B. F., St. Thomas, Ont.
Houde, B. Co., Ltd., Quebec, Que.
International Tobacco Co., Ltd., Montreal, Que.
Landau & Cormack, Ltd., Montreal, Que.
Landry, N., Montreal, Que.
Legault & Painchaud, Montreal, Que.
Lemesurier, J., & Sons, Quebec, Que.
Morris, Philip & Co., Ltd., Montreal, Que.
Riley, T. B., & D. J., Charlottetown, P.E.I.
St Lawrence Tobacco & Cigar Co., Ltd., St. Laurent, Que.

TOBACCO, Smoking and Chewing.

Dominion Tobacco Co., Montreal, Que.
Dussault Tobacco Factory Co., Ltd., Quebec Que.
Hickey & Nicholson Tobacco Co., Ltd., Charlottetown, P.E.I.
Hoolihan, A., & Co., Montreal, Que.
Houde, B. Co., Ltd., Quebec, Que.
Imperial Tobacco Co. of Canada, Ltd., Montreal.
International Tobacco Co., Ltd., Montreal, Que.
Landry, N., Montreal, Que.
Landau & Cormack, Ltd., Montreal, Que.
La Rue, O., & Co., Montreal, Que.
Legault & Painchaud, Montreal, Que.
Lemesurier, J., & Sons, Quebec, Que.
MacDonald, Sir W. C., Montreal, Que.
McAlpine Tobacco Co., Toronto, Ont.
Rattray, J. & Co., Ltd., Montreal, Que.
Rock City Tobacco Co., Ltd., Quebec, Que.
Tuckett Tobacco Ltd., Hamilton, Ont.

TOBOGGANS.

Beauchamp, J. E. & Co., Montreal, Que.
Dean, Walter, Toronto, Ont.
Gignac, J. H., Ltd., Quebec, Que.
Holland, G. A., & Son Co., Montreal Que.
Laliberte, J. B., Quebec, Que
Ross Henry, Indian Lorette, Que.

TOILET PREPARATIONS.

Bush, W. J., & Co., (Canada), Ltd., Montreal.
Carbon Oil Works, Ltd., The, Winnipeg, Man.
Chesebrough Mfg. Co., Consolidated, Montreal.
Frasier, Thornton & Co., Ltd., Cookshire, Que.
Lever Bros., Ltd., Toronto, Ont.
Misner Mfg. Co., Ltd., The, Goderich, Ont.
National Drug & Chemical Co., Ltd., Toronto.
Pompeian Mfg. Co., Ltd., Toronto, Ont.
Pulford Drug Co., The, Winnipeg, Man.
Sovereign Perfumes, Ltd., Toronto, Ont.
Toronto Pharmacal Co., Ltd., Toronto, Ont.
Wampole, Henry K., & Co., Ltd., Perth, Ont.

TOKAY.—A wine grown on the southern slopes of the Hegyalja mountains near the town of Tokay on the Theiss in Hungary. There are many kinds, of which the finest is the "Essence" pressed out of the grapes by their own weight. The total production is about 2,240,000 gallons, and genuine Tokay, especially the sweet or Imperial Tokay, can be obtained only in small quantities. It is often mixed with inferior wines, and many imitations are manufactured.

TOLU, a balsam used by perfumers and confectioners. It is named after the town Tolu in Colombia. (See **BALSAMS**).

TOMATO, or Love-apple, a plant of the order Solanaceæ, a native of South America, and now cultivated in all temperate countries. It is eaten fresh, put up in tins and made into sauces, catsups and pickles.

TOMBAC, a brass, containing at least 80 per cent. of copper. Pinchbeck, an imitation of gold, is a form of tombac. Tombac or Tumbeki is also a tobacco prepared in Turkey.

TONGS, Skidding.

Canadian Warren Axe & Tool Co., Ltd., St. Catharines, Ont.
Hills, Allan, Edge Tool Co., Ltd., Galt, Ont.
Lachute Shuttle Co., Ltd., Lachute Mills, Que
McFarlane, Neill Mfg. Co., Ltd., The, St. Mary's, N.B.
Pink Thomas, Pembroke, Ont.

TONGUES.—Ox tongues are dried and tinned in large quantities in South America, and to a smaller extent in France and other European countries. Sheeps' and pigs' tongues are also sold, and a few reindeer tongues are shipped from Russia.

TONGUES, Wagon and Sleigh.

Ackland, D., & Son, Ltd., Winnipeg, Man.
Heard, John, & Co., St. Thomas, Ont.

TONKA BEANS, the seeds of a leguminous tree of Venezuela, Guiana, and Brazil. Ciudad Bolivar, on the Orinoco, is the principal shipping port. The seeds are used for flavouring and in perfumes, and to scent snuff.

TOOART, or Tuart, the timber of a tree of Western Australia.

TOOL BOXES, Auto.

Galt Art Metal Co., Ltd., The, Galt, Ont.

TOOL KITS, Farmers'.

Smart, The Jas, Mfg. Co., Ltd., Brockville, Ont.

TOOLS, Bakers', Confectioners', and Ice Cream Makers'.

Gardner, Robt., & Son, Ltd., Montreal, Que.
Fletcher Mfg. Co., Ltd., Toronto, Ont.
Turner, John, & Son Toronto, Ont.

TOOLS, Blacksmiths'.

Armstrong, Whitworth of Canada, Ltd., Longueuil, Que.
Canadian Buffalo Forge Co., Ltd., Montreal,
London Foundry Co., Ltd., The, London, Ont.
National Machine Co., Brighton, Ont.

TOOLS, Bookbinders' and Printers'.

Miller & Richard, Toronto, Ont.
Patterson & Heward, Toronto, Ont.

TOOLS, Canners' and Tinsmiths'.

Brown Boggs Co., Ltd., Hamilton, Ont.
Letson & Burpee, Ltd., Vancouver, B.C.
Pictou Foundry & Machine Co., The, Pictou, N.S.

TOOLS, Diamond.

Anderson, Geo., & Co. of Canada, Ltd., Montreal.
Prescott Emery Wheel Co., Ltd., Prescott, Ont.

TOOLS, Edge.

Blenkhorn & Sons, Canning, N.S.
Fowler, Josiah, Co., Ltd., The, St. John, N.B.
Gilmour Bros. & Co. Montreal, Que.
Roxton Tool & Mill Co., Ltd., Roxton Pond, Que.

TOOLS, Machine.

Bertram, John & Sons, Ltd., Dundas, Ont.
Elliot, W. A., Toronto, Ont.
Hamilton Gear & Machine Co., Toronto, Ont.
Ford-Smith Machine Co., Hamilton, Ont.
Fraser, P. M. & Co., New Glasgow, N. S.
McDougall, R., Co., Ltd., Galt, Ont.
Muskoka Foundry Co., Bracebridge, Ont.
Stevens Co. of Galt, Ltd., The, Galt, Ont.

TOOLS, Plumbers'.

Good Mfg. Co., Ltd., The, Niagara Falls, Ont.
MacDonald & Sons, Ltd., Toronto, Ont .
Mueller, H. Mfg. Co. Ltd. Sarnia, Ont.

TOOLS, Pneumatic.

Canadian Ingersoll Rand Co., Ltd., Montreal.
Canadian Pneumatic Tool Co., Ltd., Montreal.
Holden Co., Ltd., The, Montreal, Que.

TOOLS, Steam Fitters'.

Bennett & Wright Co., Ltd., Toronto, Ont.
Invincible Renovator Mfg. Co., Ltd., Toronto.
Jardine, A. B., & Co., Hespeler, Ont.
MacDonald & Sons, Ltd., Toronto, Ont.
Pratt & Whitney Co. of Canada, Ltd., Dundas. Ont.

TOOLS, Stonecutters'.

Anderson, Geo., & Co. of Canada, Ltd., Montreal.

TOOTH PICKS.

Keenan Woodenware Mfg. Co., Ltd., Owen Sound, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

TOQUES AND CAPS.

Avon Hosiery, Ltd., Stratford, Ont.
Ballantyne, R. M., Ltd., Stratford, Ont.
Burritt, A. & Co. Mitchell Ont.
Crochet & Knitting Specialty Co., Toronto, Ont.
Forbes, R. Co., Ltd., Hespeler, Ont.
Knit-to-Fit Mfg. Co., Montreal, Que.
Kumfort Cap Mfg. Co., Montreal, Que.
Leadlay Mfg. Co., Ltd., Winnipeg, Man.
Northland Knitting Co., Ltd., Winnipeg, Man.
Reliance Knitting Co., Ltd., The, Toronto, Ont.
Robinson, Frank W. Ltd., Toronto, Ont.
Royal Knitting Co., Guelph Ont.
Scott Knitting Co. Toronto, Ont.

TORTOISE-SHELL.—The best tortoise-shell is obtained from the carapace of a sea-turtle. In the East the best qualities are those of Manilla and Macassar, and in the West Indies those of Cuba and the Bahamas. Other places in the Pacific and Indian Oceans supply shell.

TOUS-LES-MOIS, an arrowroot made in the Lesser Antilles, especially St. Kitts, from Canna edulis.

TOW, the short waste fibre left after carding flax and hemp. It is made into bags, sheeting, and yarn, and the refuse from rope-spinning is worked up in paper. The coarser kinds of tow are known as codilla.

TOW, Upholstery. (See also Flax, Fibre and Tow.)

Dickson, M. R., & Co., Wallaceburg, Ont.
Forrester, William, Mitchell, Ont.
McDonald, Burns & Co. Dresden Ont.

TOWEL RACKS.

Gendron Mfg. Co., Ltd., Toronto, Ont.
Kinzinger, Bruce & Co., Ltd., Niagara Falls, Ont.
Lyster Wood Box Turning & Enamelling Co., Ltd., Lyster, Que.
Thomas Bros., Ltd., St. Thomas, Ont.

TOWELS AND TOWELLING.

Dominion Linen Mfg. Co., Ltd., Guelph, Ont.
Dominion Textile Co., Ltd., Montreal, Que.
Galt Robe Co., The, Galt, Ont.
Oxford Worsted Co., Ltd., Amherst, N.S.

TOWELS, Paper.

Interlake Tissue Mills, Ltd., Merritton, Ont.

TOWERS, Cooling.

Canadian Buffalo Forge Co., Ltd., Montreal,

TOWERS (Steel). Signal, Windmill, Electric Light, Etc.

Crescent Machine Co., Ltd., The, Montreal, Que.
Fleming, James, St. John, N.B.
Goold, Shapley & Muir Co., Ltd., Brantford, Ont.
Hamilton Bridge Works Co., Ltd., The, Hamilton, Ont.
MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.
Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
Marsh & Henthorn, Ltd., Belleville, Ont.
National Bridge Co. of Canada, Ltd., Montreal.
Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
Rockwood Sprinkler Co. of Canada, Ltd., Montreal, Que.
Structural Steel Co., Ltd., Montreal, Que.
Sydney Foundry & Machine Works, Ltd., Sydney, N.S.
Toronto Iron Works Co., Ltd., Toronto, Ont.
Watt, R., Machine Works Co., Ridgetown, Ont.
Woodstock Wind Motor Co., Ltd., Woodstock, Ont.

TOWERS Water, (Fire Department.)

Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Seagrave, W. E., & Co. Walkerville, Ont.

TOY CARTS AND WHEELBARROWS.

Gendron Mfg. Co., Ltd., Toronto, Ont.

TOYS.

Dominion Toy Mfg. Co., Ltd., Toronto, Ont.

TOYS, Wood.

Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
Taylor, Scott & Co., Ltd., Palmerston, Ont.

TRACKS, Overhead and Barn Door.

Allith Mfg. Co., Ltd., Hamilton, Ont.
Beath, W. D., & Son, Co., Ltd., Toronto, Ont.
Beatty Bros., Ltd., Fergus Ont.
British American Hardware Mfg. Co. Toronto.
Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Morris, The Herbert, Crane & Hoist Co., Ltd., Toronto, Ont.
Richards-Wilcox Canadian Co., Ltd. London, Ont.
Safety Door Hanger Co., Ltd., Hamilton, Ont.

TRAGACANTH, the gum of various species of Astralagus. The best white tragacanth is shipped from Smyrna. (See **GUMS**).

TRAIN OIL.—Various fish oils included in this term. (See **WHALES, SHARKS, SPERM-OILS**).

TRANSFORMERS.

Canadian Crocker-Wheeler Co., Ltd., The, St. Catharines, Ont.
Caandian Electrical & Motor Co., Ltd., Toronto.
Canadian General Electric Co., Ltd., Toronto.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Canadian Moloney Electric Co., Ltd., Windsor, Ont.
Forman, John, Montreal, Que.
Monarch Electric Co. Ltd., St. Lambert, Que.
Packard Electric Co., Ltd., St. Catharines, Ont.
Wagner Electric Mfg. Co., of Canada, Ltd., Montreal, Que.

TRAP ROCK.

Huron Trap Rock Co., Ltd., Sault Ste. Marie, Ont.
Ontario Rock Co., Ltd., Toronto, Ont.

TRAPS, Basin, Sink and Bath.

Cummings Brass, Iron & Wire Co., Ltd., Winnipeg, Man.
Morrnson, The Jas. Brass Mfg. Co., Ltd., Toronto, Ont.
Mueller, H., Mfg. Co., Ltd., Sarnia, Ont.

TRAPS, Lead.

Canada Metal Co., Ltd., Toronto, Ont.
Robertson, The James Co., Ltd., Montreal, Que., and Toronto, Ont.
United Brass & Lead, Ltd., Toronto, Ont.

TRAPS, Mouse and Rat.

Oneida Community, Ltd., Niagara Falls, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.
Wright, E. T., & Co., Hamilton, Ont.

TRAPS, Steam.

Bennett & Wright, Co., Ltd., Toronto, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Fairbanks-Morse Co., Ltd., Montreal.
Canadian Morehead Mfg. Co., Ltd., Woodstock, Ont.
Canadian Sirocco Co., Ltd., Windsor, Ont.
Darling Bros., Ltd., Montreal, Que.
Dominion Radiator Co., Ltd., Toronto, Ont.
Dunham, C. A., Co., Ltd., Toronto, Ont.
General Fire Extinguisher Co., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Sheldon's, Ltd., Galt, Ont.

TREACLE.—Syrup eliminated in the process of sugar refining. The best is called golden syrup.

TREE-NAILS, oaken pins for securing planks to timbers in ships.

TREES, Shoe.

Boston Last Co., Richmond, Que.
Canada Last Co., Ltd., The, Toronto, Ont.
Dominion Last Works, Quebec, Que.
Robin Bros., Montreal, Que.
Toronto Last Factory, The, Toronto, Ont.

TREFOIL, a name given to clover seeds exported from continental countries in barrels.

TRICHINOPOLY, a harsh tobacco grown in Madras, and made into long cigars.

TROUT.—The common trout is abundant in all the lakes and rivers of northern Europe and America. The great lake-trout is found in some of the larger lakes in the British Isles and Scandinavia. Large numbers of the salmon-trout or sea-trout are taken in British waters. The common trout and sea-trout have been introduced into Australia. The chief American species are the lake trouts. Closely allied is the charr, found in the lakes of Scotland, Cumberland, and Westmorland, in those of Switzerland, and as far north as Spitzbergen. Of American charr has been introduced into Britain.

TROWELS, Plastering.

Smith, R. H., Co., Ltd., St. Catharines, Ont.

TRUCKS, Abattoir and Soap Makers'.

Greey, Wm. & J. G., Toronto, Ont.
Plant, W. P., Hastings, Ont.
Shantz, P. E., Preston, Ont.

TRUCKS, Bag, Factory, Warehouse and Mill.

Beatty Bros., Ltd., Fergus, Ont.
Bell, B., & Son, Co., Ltd., St. George, Ont.
Burrow, Stewart & Milne Co., Ltd., The, Hamilton Ont.
Cantin et Fils, La Cie., Warwick, Que.
Corbet Foundry Co., The, Owen Sound, Ont.
Dominion Scale & Vault Co., Ltd., Farnham, Que.
Greey, Wm. & J. G., Toronto, Ont.
Gurney Scale Company, Hamilton, Ont.
Hall Engineering Works, The, Montreal, Que.
Jennings, A., & Co., Montreal, Que.
London Foundry Co., Ltd., The, London, Ont.
Mahaffy, W. S., Toronto, Ont.
Meaford Wheelbarrow Co., Ltd., Meaford, Ont.
Miller Bros. & Sons, Ltd., Montreal, Que.
Mussen's, Ltd., Montreal, Que.
Smart, The Jas, Mfg. Co., Ltd., Brockville, Ont.
Shantz, P. E., Preston, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.
Verity Plow Co., Ltd., Brantford, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.
Wire Woven Mfg. Co., Limited, Woodstock, Ont.

TRUCKS, Bakers'.

Fletcher Mfg. Co., Ltd., Toronto, Ont.

TRUCKS, Brick, Tile and Lumber.

Bechtels, Ltd., Waterloo, Ont.
Corbet Foundry Co., The, Owen Sound, Ont.
MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
McOuat, T., & Son, Lachute Mills, Que.

TRUCKS, Canning Factory.

Watson, John, Mfg. Co., Ltd., Ayr, Ont.

TRUCKS, Coal.

Fletcher Mfg. Co., Ltd., Toronto, Ont.
MacKinnon, Holmes & Co., Ltd., Sherbrooke, Que.

TRUCKS, Electric Car and Locomotive.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.

TRUCKS, Farm, Freight, Log and Lumber. (See also Lorries),

Adams Wagon Co., Ltd., Brantford, Ont.
Bain Wagon Co., Ltd., Woodstock, Ont.
Bell, B., & Son, Co., Ltd., St. George, Ont.
Canadian Warren Axe & Tool Co., Ltd., St. Catharines, Ont.
Jennings, A., & Co., Montreal, Que.
Petrolia Wagon Co., Ltd., Petrolia, Ont.
Tudhope Anderson Co., Ltd., Orillia, Ont.
Woodstock Wagon & Mfg. Co., Ltd., Woodstock, Ont.

TRUCKS, Hook and Ladder and Aerial.

Brandon Fire Engine Co., Ltd., The, Brandon, Man.
Ottawa Car Co., Ltd., Ottawa, Ont.
Seagrave, W. E., Co., Ltd., Ottawa, Ont.
Smith Bros., Toronto, Ont.

TRUCKS, Steamboat, Dock and Railway.

Bell, B., & Son Co., Ltd., St. George, Ont.
Burrow, Stewart & Milne Co., Ltd., The, Hamilton Ont.
Canada Steel Goods Co., Ltd., Hamilton, Ont.
Corbet Foundry Co., The, Owen Sound, Ont.
Gurney Scale Company, Hamilton, Ont.
Jennings, A., & Co., Montreal, Que.
London Foundry Co., Ltd., The, London, Ont.
Meaford Wheelbarrow Co., Ltd., Meaford, Ont.
Mussen's, Ltd., Montreal, Que.
Shantz, P. E., Preston, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.

TRUCKS, Motor.

Brantford Motor Truck Co., Ltd., Brantford, Ont.
Canadian Comercial Motor Car Co., Ltd., Windsor, Ont.
Canadian Drednot Motor Trucks, Ltd., Montreal.
Caandian Pneumatic Tool Co., Ltd., Montreal.
Clinton Motor Car Ltd., Clinton, Ont.
Gramm Motor Truck Co. of Canada, Ltd., Walkerville, Ont.
New Dominion Motors, Ltd., Walkerville, Ont.
Northern Motor Car Co., Ltd., Kingston, Ont.
Nova Scotia Carriage & Motor Car Co., Ltd., Amherst, N.S.
Russell Motor Car Co., Ltd., West Toronto, Ont.
Schacht Motor Car Co., Hamilton, Ont.
Tate Electrics, Ltd., Montreal, Que.
Watson Carriage Co., Ltd., Ottawa, Ont.

TRUFFLES, fungi which grow at a depth of a foot or more below the surface of the ground, usually near the roots of trees. The common truffle is found in Wiltshire, Hampshire, and Kent, and is black in colour. More esteemed is the French truffles. Truffles are cultivated in the south of France, and are known as Perigord truffles. The chief centre is the department of Vaucluse, and markets are held at Apt from November to March. The total production of France is estimated at about 11 million pounds. In Germany the black truffle is rare, but the white truffle, an inferior kind, is not uncommon in Austria, Hungary, Bohemia, Italy, and Russia. The truffle is a well-known condiment for pates de foie gras, soups, and entrees.

TRUMPETER, an important market fish of Tasmania and New Zealand, which is sent in a fresh state, or smoked, to Sydney and Melbourne.

TRUNKS.

Adams Bros., Harness Mfg. Co., Ltd., Toronto.
Adams Mfg. Co., Ltd., Toronto, Ont.
Berlin Trunk & Bag Co., Ltd., The, Berlin, Ont.
Christie Trunk & Bag Co., Ltd., Amherst, N.S.
Carson, Hugh, Ltd., Ottawa, Ont.
Eveleigh, J., & Co. Ltd. Montreal, Que.
Fournier, J. E., Montreal Que.
Gignac, J. H., Ltd., Quebec, Que.
Kelly's, Ltd., Halifax, N.S.
Lamontagne, Ltd., Montreal, Que.
Langmuir, M., Mfg. Co. of Toronto, Ltd., Toronto, Ont.
McBrine, The L., Co., Ltd., Berlin Ont.
McLeod, Hawthorne, Co., Ltd., Montreal, Que.
Norris F., & Sons, Victoria, B.C.
Stewart, T. A., Winnipeg, Man.
Taylor, G. R., & Co., Winnipeg, Man.

TRUSSES, Surgical.

Ottawa Truss & Surgical Mfg. Co., Ltd., Ottawa, Ont.

TUBEROSE.—The common tuberose is largely cultivated in the south of France, and an essential oil is extracted from it which is much used in perfumery.

TUBES, Boiler.

Babcock & Wilcox, Ltd., Montreal, Que.

TUBES, Glass.

Beaver Flint Glass Co. of Toronto, Ont.

TUBES, Mailing.

Dominion Paper Box Co., Ltd., Toronto, Ont
Hamilton Paper Box Co., Hamilton, Ont.
Hand, T. W., Firework Co., Ltd., Hamilton, Ont.
Kilgour Bros., Toronto, Ont.
Mace, Geo. A., & Co. Montreal Que.
Major Mfg. Co., Ltd., The, Montreal, Que.
Royal Paper Box Co., Quebec Que.
Rudd Paper Box Co., Ltd., The, Toronto, Ont.

TUBES, Speaking.

Canada Paper Box Co., Ltd., The, Montreal.
Shipway Iron, Bell & Wire Mfg. Co., Ltd., Toronto, Ont.
Wheeler & Bain, Toronto, Ont.

TUBING, Brass and Copper.

Allan, R. Geo., Toronto, Ont.
Brown's Copper & Brass Rolling Mills, New Toronto, Ont.
Canadian Seamless Wire Co., Ltd., Toronto, Ont.

TUBING, Brass Covered.

Newell Mfg. Co., The, Prescott, Ont.

TUBING, Gold, Silver and Plated.

Canadian Seamless Wire Co., Ltd., Toronto, Ont.

TUBING, Knit Wool.

Durham Glove Co., Ltd., Bowmanville, Ont.
Wood, J. T., Brussels, Ont.

TUBING, Metallic, for Acids, Gases or Liquids.

Canadian Seamless Wire Co., Ltd., Toronto.
Ontario Metal Products Co., Ltd., Toronto, Ont.

TUBING, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
Gutta Percha & Rubber, Ltd., Toronto, Ont.
Walpole Rubber Co., Ltd., Montreal, Que.

TUBING, Wrought, Black and Galvanized.
(See Pipe, Wrought, Black and Galvanized).

TUBS, Bath.

Amherst Foundry Co., Ltd., Amherst, N.S.
Folding Bath Tub Co., Ltd., Gananoque, Ont.
Standard Sanitary Mfg. Co., Ltd., Toronto, Ont.
Standard Ideal Co., Ltd. Port Hope Ont.

TUBS, Cedar, Ice Cream.

Fletcher Mfg. Co., Ltd., Toronto, Ont.

TUBS, Fibre (Wash, Butter and Covers.)

Eddy, The E. B., Co., Ltd., Hull, Que.
Thomas Bros. Ltd., St. Thomas, Ont.

TUBS, Laundry, Enameled and Plain.

Amherst Foundry Co., Ltd., Amherst, N.S.
Fox & Company, Toronto, Ont.

TUBS, Stave (Butter, Wash, Etc.)

Beck, The C., Mfg. Co., Ltd. Penetanguishene, Ont.
Cane, Wm., & Sons Co. Ltd. The, Newmarket, Ont.
Clark Bros., Sutton, Que.
Disraeli Box Co., Inc., Disraeli, Que.
Keenan Wooden Ware Mfg. Co., Ltd., Owen Sound, Ont.
Moore, John E., St. John, N.B.
Thomas Bros., Ltd., St. Thomas, Ont.

TUBS, Wash (Galvanized.)

Aubry, A., & Fils, Montreal, Que.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.

TUGS, (See Steamers.)

TULE, an American name for the bulrush.

TULIPS.—Holland is still the country where tulips are most cultivated, and large quantities of bulbs are exported annually.

TULIP-WOOD, grows all over United States and the southernmost parts of Ontario. It has a yellow heartwood. The bark contains a bitter principle used as a substitute for quinine. It is also grown in Australia and in India. In commerce it is often called white wood and is probably the best hardwood in America to hold its shape after seasoning. It is similar to basswood in structure but is much softer and has a finer grain. It takes paint well and is used largely for panelling in vehicle bodies, piano framework and car sheeting. **(See WOOD).**

TULLE, a fabric of thin silk network used as trimming, and for caps and veils. Originally made at Tulle, capital of the department of Correze, in France, the fabric is now manufactured at Saint-Pierre and Lyons. Nottingham is the English centre of the manufacture.

TUMBLERS.

Atlas Glass Co., Ltd., Montreal, Que.
Dominion Glass Co., Ltd., Montreal, Que., Toronto, Ont., and Wallaceburg, Ont.
Jefferson Glass Co., Ltd., Toronto, Ont.

TUNGSTEN, a rare metal chiefly derived from wolfram, a tungstate of iron and magnesia, but also from scheelite, a tungstate of lime. Tunsten ores are found in many places in Europe, in the United States and Canada and in South America. The output is small, for though the mineral is known to have some effect in the manufacture of steel, this effect has not been thoroughly investigated. Tungstate of soda prevents muslins and other light fabrics from bursting into flames when in contact with fire.

TUNNY.—The tunny is a fish belonging to the mackerel family. The common tunny is a large fish, very common in the Mediterranean and Black Seas, and less abundant on the Atlantic shores of Europe and America. It is salted and preserved in oil. The long-finned tunny, a much smaller fish, is caught chiefly in the Bay of Biscay. Tunny oil is used in dressing leather.

TURBINES, Steam.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Crocker-Wheeler Co., Ltd., The, St. Catharines, Ont.
Canadian General Electric Co., Ltd., Toronto.
McDougall, The John, Caledonian Iron Works, Ltd., Montreal. Que.

TURBINES, Water.

Barber. Chas. & Sons, Meaford, Ont.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Kennedy, Wm., & Sons, Ltd., Owen Sound, Ont.
Wilson, J. C., & Co., Glenora, Ont.

TURMERIC, the rhizome of a plant of the ginger family, which grows in the East Indies, China, and Fiji. It has long been used in the East as a dye, but the colour is not permanent, and as a medicine. Turmeric is also a spice, is an ingredient of curry-powder, and is mixed with mustard. The imports into Europe have much diminished.

TURNBUCKLES, Bridge, Guy and Swivel.

Canadian Billings & Spencer, Ltd., Welland, Ont.
Canadian Steel Foundries, Ltd., Montreal, Que.
Dominion Wire Rope Co., Ltd., Montreal, Que.
Miller Bros. & Sons, Ltd., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Starr Mg. Co., Ltd., Dartmouth, N.S.
Steel Co. of Canada, Ltd., Toronto, Ont.

TURNED GOODS, Wood.

Aitchison, D., & Co., Hamilton, Ont.
Allen, A. W., & Son, Middleton, N.S.
Ball Planing Mill Co., Ltd., The, Barrie, Ont.
Batts, Ltd., West Toronto, Ont.
Ben Hur Mfg. Co., Ltd., Hamilton, Ont.
British Canadian Lumber Corporation, Ltd., Vancouver, B.C.
British Columbia Mills Timber & Trading Co., Vancouver, B.C.
Brown & Rutherford, Winnipeg, Man.
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
Canadian Pacific Lumber Co., Ltd., Vancouver, B.C.
Canadian Western Lumber Co., Ltd., Fraser Mills, B.C.
Clark, W. H., & Co., Ltd., Edmonton, Alta.
Crevier & Fils, Montreal, Que.
Cushing Bros., Co., Ltd., Calgary, Alta.
Czerwinski Box Co., Ltd., The, Winnipeg, Man.
Davidson, Jas., Ottawa, Ont.
Eaton, J. R., & Sons, Ltd., Orillia Ont.
Eddy, Geo., Co., Ltd., Bathurst, N.B.
Edwards, W. C., & Co., Ltd., Ottawa, Ont.
Finlay, J. & Sons Co., Norwood, Ont.
Gelinas, C. P., & Frere, Three Rivers, Que.
Georgian Bay Shook Mills, Ltd., Midland, Ont.
Gignac, J. H., Ltd., Quebec, Que.
Grant, John I., New Glasgow, N.S.
Gossèlin, Joseph, Levis, Que.
Hanbury Mfg. Co., Ltd., Brandon, Man.
Hillsboro Woodworking Mfg. Co., Hillsboro, N.B.
Holton Lumber Co., Ltd., Belleville, Ont.
Knight Bros., Co., Ltd., The, Burk's' Falls, Ont.
Kerr, J. & J., Co., Ltd., Petrolia, Ont.
Knechtal Wood Turning Co., The, Southampton, Ont.
Lachute Shuttle Co., Ltd., Lachute Mills, Que.
Leduc & Fortin, Beauharnois, Que.
Leigh, Jas., & Sons, Victoria, B.C.
Lemon, Gonnason & Co., Victoria, B.C.
Loughead Bros., Ltd., Sarnia, Ont.
Lyster Wood Box Turning & Enameling Co., Ltd., Lyster, Que.
MacInnes, John, & Son, Ltd., Halifax, N.S.
McDonald-Rowe Woodworking Co., Charlottetown, P.E.I.
McKillop, A., & Sons, Ltd., West Lorne, Ont.
Moore-Whittington Lumber Co., Ltd., Victoria, B.C.
Murray, G. W., Co., Ltd., Winnipeg, Man.
Muskoka Wood Mfg. Co., Ltd., The, Huntsville, Ont.
Nagle & Mills, Ingersoll, Ont.
Nelson & Foster, Winnipeg, Man.
Neville, Robt., Jr., Montreal, Que.
Nicolet Falls Pulp & Lumber Co., Nicolet Falls, Que.
Ottawa Stair Works, Ottawa, Ont.
Otterville Mfg., Co., Ltd., Otterville, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
Pauze U., & Fils, Co., Montreal, Que.
Rathbun Co., Ltd., Deseronto, Ont.
Rhodes, Curry Co., Ltd., Amherst, N.S.
Risteen, J. C., & Co., Ltd., Fredericton, N.B.
Riverside Lumber Co., Ltd., Calgary, Alta.
Robertson & Hackett, Vancouver, B.C.
Rutherford, The, Wm., & Son Co., Ltd., Montreal, Que.
Sarassin, Napoleon, et Fils, Ltd., Montreal, Que.
Scotia Woodworkers, Ltd., Oxford, N.S.
Scott, The J. C., Co., Ltd., Toronto, Ont.
Sheppard, Jas., & Son, Sorel, Que.
Spencer Bros., & Turner, Ltd., Truro, N.S.
Springhill Mfg. Co., Springhill, N.S.
Still, F. H., Mfg., Co., Ltd., St. Thomas, Ont.
Telfer Bros., Ltd., Bridgewater, N.S.
Thompson & Co., Sherbrooke, Que.
Tremblay, F., & Co., Montreal, Que.
Wattsburg Lumber Co., Ltd., Wattsburg, B.C.
Western Planing Mills Co., Ltd., Calgary, Alta.
Wilson Bros., Ltd., Collingwood, Ont.
Woodstock Woodworking Co., Ltd., Woodstock, N.B.

TURNIPS.—The white turnip and the variety known as Swedes, are largely cultivated in northern countries as food for cattle.

TURNSOLE, a blue colouring matter obtained from lichens. (**See LITMUS**). Also a red colouring matter made at Nimes from a euphorbiaceous plant, which is used to colour confectionery, and in Holland, cheeses.

TURNTABLES, Locomotive.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Bridge Co., Ltd., Walkerville, Ont.
Dominion Bridge Co., Ltd., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
National Bridge Co., Ltd., Montreal, Que.
Northern Crane Works, Walkerville, Ont.
McNeil, Wm., P., & Co., New Glasgow, N.S.
St. Lawrence Bridge Co., Ltd., Montreal, Que.

TURPENTINE, a resinous substance secreted by various coniferous trees. German and French (the best) turpentine is chiefly from the Pine, Strasbourg turpentine from the silver fir and Venice turpentine from the larch. In the United States, the chief exporting country, it is obtained chiefly from the long-leaf pine. Chian or Cyprus turpentine is derived from the terebinth which grows in the eastern Mediterranean. From turpentine, which is a mixture of resin and oil, oil of turpentine is obtained by distillation. It is used in mixing varnishes and oil paints, and as an irritant in medicine. Mixed with sulphuric acid and redistilled it becomes terebene, a fragrant liquid employed as a disinfectant and as a cough medicine.

TURPETH MINERAL, the yellow basic sulphate of mercury.

TURPETH ROOT, the root of Ipomaea purga of the East Indies, Australia, and Polynesia, which yields a kind of jalap.

TURQUOISE, a blue stone consisting principally of phosphate of alumina. The finest stones are found near Nishapur and Mashad in Persia. Inferior stones are found in Germany, and in New Mexico, and Alabama in the United States. Fossil turquoise, or odontolite, is fossil ivory—tusks of the mammoth and elephant—coloured blue by phosphate of iron. It is found in Siberia and Languedoc.

TURTLES.—Several turtles are esteemed as food. The most valuable is the green turtle found along the coast of America from Brazil to Cape Hatteras. Turtles are sent to the European market from the West Indies, particularl yJamaisa. The flesh is also exported, dried or in tins. The terrapins are also eaten, the finest flavoured being the diamond-back. Many turtles and their eggs yield oil, and some kinds tortoise-shell.

TUSSORE SILK, the wild or jungle silk of India ,properly spelled tasar. **(See SILK).**

TWEEDS, woollen materials for clothing, rather loosely spun and felted. They derive their name from having been made originally at Galashiels and other towns on the Tweed, where are still the most important factories.

TWEEDS. (See Cloth, Tweed.)

TWILLS, cloths with diagonal ribs produced by raising one thread of the warp and depressing two or more for the passage of the weft.

TWINE, Binder. (See Binder Twine.)

TWINE, Cotton.

Canadian Cottons, Ltd., Montreal, Que.
Cornwall & York Cotton Mills Co., Ltd., St. John, N.B.
Cosmos Cotton Co., Ltd., Yarmouth, N.S.
Dominion Textile Co., Ltd., Montreal, Que.
Doon Twines, Ltd., Doon, Ont.
Hamilton Cotton Co., Hamilton, Ont.
Imperial Cotton Co., Ltd., Hamilton, Ont.
Shurly & Derrett, Ltd., Toronto, Ont.

TWINE, Hemp, Jute and Flax.

Canadian Bag Co., Ltd., Winnipeg, Man.
Doon Twines, Ltd., Doon, Ont.
Consumers' Cordage Co., Ltd., Montreal, Que.
Shurly & Derrett, Ltd., Toronto, Ont.

TWINE, Mattress, Upholsterers', Sail, Etc.

Cosmos Cotton Co., Ltd., Yarmouth, N.S.
Doon Twines, Ltd., Doon, Ont.

TWINE, Net.

Hamilton Cotton Co., Hamilton, Ont.

TWINE, Sewing and Broom.

Doon Twines, Ltd., Doon, Ont.
Hamilton Cotton Co., Hamilton, Ont.

TWINE, Tarred.

Consumers' Cordage Co., Ltd., Montreal, Que.

TWINE, Wrapping.

Cosmos Cotton Co., Ltd., Yarmouth, N.S.
Doon Twines, Ltd., Doon, Ont.
Hamilton Cotton Co., Hamilton, Ont.
Imperial Cotton Co., Ltd., Hamilton, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

TWIST. (See YARN).

TYPE-METAL, an alloy of lead antimony and tin from which printing types are cast.

TYPE, Printing.

Miller & Richard, Toronto, Ont.
Toronto Type Foundry Co., Ltd., Montreal, Que. and Toronto, Ont.

TYPEWRITERS.

Canadian Fairbanks-Morse Co., Ltd., Montreal.
United Typewriter Co., Ltd., Toronto, Ont.
Williams Mfg. Co., Ltd., The, Montreal, Que.

U

ULTRAMARINE, a blue colour originally made from lapis lazuli, but owing to the high price of the stone, now made artificially. This French ultramarine is a composition of clay, sulphate of soda, carbonate of soda, and sulphur, and is made chiefly in Germany, though some of good quality is made at Fleurien-sur-Saone in France. Ultramarine is used as a water and oil colour, and to print paper and textiles.

UMBER. (See OCHRE).

UMBRELLAS.—The manufacture of umbrellas and parasols has increase to a great extent. Silk, alpaca, cotton, and mixed materials are used in the manufacture.

UMBRELLAS.

Bailey, Dixon & Co., Ltd., Toronto, Ont.
British Columbia Umbrella Factory, Vancouver, B.C.
Brophey Umbrella Co., Ltd., Toronto, Ont.
Dominion Umbrella Factory, Montreal, Que.
Eclipse Umbrella Co., Ltd., Montreal, Que.
Fairbairn, R. D., Co., Ltd., Toronto, Ont.
Irving Umbrella Co., Ltd., Toronto, Ont.
Montreal Suspender & Umbrella Mfg. Co., Montreal, Que.
Standard Umbrella Mfg. Co., Montreal, Que.

UNDERSKIRTS.

Bean & Stewart Skirt Co., St. Stephen, N.B.
Canadian Underskirt Co., Ltd., Toronto, Ont.
Fairbairn, R. D., Co., Ltd., Toronto, Ont.
McKay Bros., Ltd., Toronto, Ont.
Northway, John, & Son, Ltd., Toronto, Ont.
Pugh Specialty Co., Ltd., Toronto, Ont.
Rea, A. E., & Co., Ltd., Toronto, Ont.
Telford Bros. Garment Co., Rock Island, Que.

UNDERSKIRTS, Silk.

Caandian Converters Co., Ltd., The, Montreal.
Canadian Underskirt Co., Ltd., Toronto, Ont.
Rea, A. E., & Co., Ltd., Toronto, Ont.

UNDERTAKERS' SUPPLIES.

Dominion Casket Co., Guelph, Ont.
Elliott, James S., & Son, Prescott, Ont.
Evel Casket Co., Ltd., Hamilton, Ont.
Girard & Godin, Three Rivers, Que.
Globe Casket Co., The, London, Ont.
Harriston Casket Co., Ltd., The, Harriston, Ont.
National Casket Co., Toronto, Ont.
Semmens & Evel Casket Co., Ltd., Hamilton, Ont.

UNDERWEAR, Balbriggan.

Beaver Knitting Mills, Alton, Ont.
Canadian Knitting Co., Ltd., The, Hamilton, Ont.
Kingston Hosiery Co., Ltd., Kingston, Ont.
Moodie, J. R., & Sons, Hamilton, Ont.
Oxford Knitting Co., Ltd., The, Woodstock, Ont.
Penman's, Ltd., Paris, Ont.
Simpson, Joseph, Sons, Ltd., Toronto, Ont.
Zimmerman Mfg. Co., Ltd., Hamilton, Ont.
Lennard, S., & Sons, Dundas, Ont.

UNDERWEAR, Cotton (Men's, Women's and Children's)

Beaver Knitting Mills, Alton, Ont.
The C. Turnbull Co. of Galt, Galt, Ont .
Canadian Knitting Co., Ltd., The, Hamilton, Ont.
J. R. Moodie & Sons, Hamilton, Ont.
Zimmerman Mfg. Co., Ltd., Hamilton, Ont.
Penman's, Ltd., Paris, Ont.
Reliance Knitting Co., Toronto, Ont.
Joseph Simpson, Sons, Toronto, Ont.
Oxford Knitting Co., Woodstock, Ont.
Knit-to-Fit Mfg. Co., Montreal, Que.

UNDERWEAR, Men's, (Wool heavy ribbed.)

Humphrey's Unshrinkable Underwear Co., Moncton, N.B.
Nova Scotia Underwear Co., Eureka, N.S.
Stanfield's, Ltd., Truro, N.S.
Reid Raynor Knitting Mills, Tryon, P.E.I.
Newfoundland Knitting Mills, St. John's, Nfld.
Almonte Knitting Co., Almonte, Ont.
Alton Knitting Mills, Alton, Ont.
Bates & Innes, Ltd., Carleton Place, Ont.
Peerless Underwear Co., Hamilton, Ont.
Thomas Waterhouse & Co., Ingersoll, Ont.
D. Graham Sons & Co., Inglewood, Ont.
Dods Knitting Co., Orangeville, Ont.
Schofield Woolen Co., Oshawa, Ont.
Penman's, Ltd., Paris, Ont.
Joseph Simpson, Sons, Toronto, Ont.
York Knitting Mills, Toronto, Ont.

UNDERWEAR, Woolen and Worsted, (Men's Women's and Children's.)

Humphrey's Unshrinkable Underwear Co., Moncton, N.B.
Stanfield's, Ltd., Truro, N.S.
S. Leonard & Sons, Dundas, Ont.
Galt Knitting Co., Galt, Ont.
The C. Turnbull Co. of Galt, Galt, Ont .
Canadian Knitting Co., Hamilton, Ont.
Mercury Mills, Ltd., Hamilton, Ont.
J. R. Moody, & Sons, Hamilton, Ont.
Zimmerman Mfg. Co., Ltd., Hamilton, Ont.
Schofield Woolen Co., Oshawa, Ont.
Penman's, Ltd., Paris, Ont.
Reliance Knitting Co., Toronto, Ont.
Joseph Simpson, Sons, Toronto, Ont.
York Knitting Mills, Toronto, Ont.
Harney Knitting Co., Woodstock, Ont.
Oxford Knitting Co., Woodstock, Ont.
Knit-to-Fit Mfg. Co., Montreal, Que.

UNDERWEAR. Silk and Silk Mix.

Niagara Silk Mills, Ltd., Brantford, Ont.
S. Leonard & Sons, Dundas, Ont.
Canadian Knitting Co., Hamilton, Ont.
Mercury Mills, Ltd., Hamilton, Ont.
Harney Knitting Co., Woodstock, Ont.
Penman's, Ltd., Paris, Ont.
Oxford Knitting Co., Woodstock, Ont.
Knit-to-Fit Mfg. Co., Montreal, Que.
St. Catharines Silk Mills, St. Catharines, Ont.

UNDERWEAR, Fleeced.

Beaver Knitting Mills, Alton, Ont.
The C. Turnbull Co. of Galt, Galt, Ont.
Galt Knitting Co., Galt, Ont.
J. R. Moodie & Sons, Hamilton, Ont.
Penman's, Ltd., Paris, Ont.
Joseph Simpson Sons, Toronto, Ont.
York Knitting Mills, Toronto, Ont.
Newfoundland Knitting Mills, St. John's, Nfld.

UNIFORMS.

Campbell Clothing Co., Montreal, Que.
Crown Tailoring Co., Ltd., Toronto, Ont.
Inglis, W. J., Montreal, Que.
Rex Tailoring Co., Toronto, Ont.

UNIONS, fabrics of mixed materials—**flax** and cotton or wool and cotton.

UPHOLSTERY GOODS.

Canadian Textile & Weaving Co., Ltd., Guleph, Ont.
Gold Medal Furniture Mfg. Co., Ltd., Toronto.
Hees, Geo. H., Son & Co., Ltd., Toronto, Ont.
Montreal Cottons, Ltd, Valleyfield, Que.

UPSETTERS, Gold Tire. (See also Benders, Tire.)

House, Julius F., Toronto, Ont.
London Foundry Co., Ltd., The, London, Ont.
National Machine Co., Brighton, Ont.
Thompson Mfg. Co., Ltd., The, Grand Bay, N.B.

URANIUM, a rare element obtained usually from a pitch-blende which contains the black oxide of uranium. It occurs in the cobalt and silver mines of Saxony and Bohemia, and uranium phosphate in the granites of Autún and Limoges. Uranium and Vanadium are mined in Colorado, U.S.A. It is used in glass and porcelain manufacture, and in iron and other alloys. Salts of these rare elements are manufactured.

URETHANE, a chemical product made by the action of ammonia on ethyl carbonate. It takes the form of tasteless and colourless lamina, and is administered as a hypnotic.

URNS, Brass.

Chadwick Brass Co., Ltd., The, Hamilton, Ont.
Fletcher Mfg. Co., Ltd., Toronto, Ont.

UTENSILS, Cooking Aluminum.

Hahn Brass Co., Ltd., The, New Hamburg, Ont.
Hudson Bros., Toronto, Ont.
Northern Aluminum Co., Ltd., Toronto, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Ware Mfg. Co., Ltd., Oakville, Ont.

UTENSILS, Cooking, Enameled and Copper.

Burns, John, & Co., Montreal, Que.
Davidson, Thos., Mfg. Co., Ltd., Montreal, Que.
Fairgrieve Metal & Stamping Co., Toronto, Ont.
McClary Mfg. Co., London, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Sparrow, Geo., & Co., Toronto, Ont.

UTENSILS, Electric Cooking.

Canadian Westinghouse Co., Ltd., Hamilton, Ont.

UTENSILS, Household and Dairy (Tin and Sheet Iron).

Aubry, A., & Fils, Montreal, Que.
Davidson, Thos., Mfg. Co., Ltd., Montreal, Que.
Farquhar Bros., Ltd., Halifax, N.S.
McClary Mfg. Co., London, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Stevely, W., & Sons, London, Ont.

V

VACCINES.

Parke, Davis & Co., Walkerville, Ont.

VACOUA.—Sacks are made in Mauritius and Reunion from the fibre of the screw-pine, in which sugar and coffee are packed. Matting is also made from the same fibre.

VALENCIAS, raisins, prepared in Turkey by dipping bunches of grapes in hot lye, and drying them in the sun.

VALERIN, the roots of a plant growing in Northern Asia, and cultivated in the United States. They yield medicines valuable as stimulants, especially in nervous disorders. Other species possess the same property. The name is also given to the roots of the orchids used as substitute. **(See also SPIKENARD).**

VALISES. (See Bags, Travelling, and Suit Cases.)

VALVES, Angle and Check (Brass).

Anti-Pack Valve Co., Ltd., Montreal, Que.
Cuthbert, W. R., & Co., Montreal, Que.
Economical Gas Apparatus Construction Co., Ltd., Toronto, Ont.
Empire Mfg. Co., Ltd., London, Ont.
Imperial Mfg. Co., Welland, Ont.
Kerr Engine Co., Ltd., The, Walkerville, Ont.
Morrison, The Jas., Brass Mfg. Co., Ltd., Tor-
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Mueller, H., Mfg. Co., Ltd., Sarnia, Ont.
National Brass, Ltd., The, London, Ont.
Robertson, The James, Co., Ltd., Toronto, Ont

VALONIA, the large acorn-cups of an oak indigenous in the Levant. In the neighbourhood of Smyrna 54,000 tons are gathered in the year. As a tanning material it ranks second only to oak bark.

VALVES, Angle and Check (Iron Body.)

Kerr Engine Co., Ltd., Walkerville, Ont.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

VALVES, Back Pressure.

Darling Bros., Ltd., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

VALVES, Dry Pipe and Alarm, for Sprinkler Systems.

Rockwood Sprinkler Co. of Canada, Ltd., The, Montreal, Que.

VALVES, Gate and Globe (Brass).

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Fairbanks Morse Co., Ltd., Montreal.
Cuthbert, W. R., & Co., Montreal, Que.
Empire Mfg. Co., Ltd., London, Ont.
Fairbanks, E. & T., Co., Ltd., Sherbrooke, Que.
Garth Company, The, Montreal, Que.
General Fire Extinguisher Co., Montreal, Que.
Golden Gate Mfg. Co., Ltd., Montreal, Que.
Imperial Mfg. Co., Welland, Ont.
Jenkins Bros., Ltd., Montreal, Que.
Kerr Engine Co., Ltd., Walkerville, Ont.
London Foundry Co., Ltd., The, London, Ont.
McAvity, T., & Sons, Ltd., St. John, N.B.
Mitchell, The Robt., Co., Ltd., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Robertson, The James, Co., Ltd., Toronto, Ont.
Steel & Radiation, Ltd., Toronto, Ont.
United Brass & Lead, Ltd., Toronto, Ont.

VALVES, Gate and Globe (Iron Body).

Economical Gas Aparatus Construction Co., Ltd. Toronto, Ont.
Kerr Engine Co., Ltd., Walkerville, Ont.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
Whitfield, The John, Co., Toronto, Ont.

VALVES, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
Gutta Percha & Rubber Ltd., Toronto, Ont.
Jenkins Bros., Ltd., Montreal, Que.

VALVES, Throttle.

Canadian Detroit Lubricator Co., Ltd., Walkerville, Ont.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.

VANADIUM, a rare mineral, like uranium, used for the manufacture of alloys.

VANILLA.—The vanillas are a genus of orchids which grow in tropical countries in both the Old and New Worlds. The best vanilla of commerce is obtained from V. planifolia, originally a native of the West Indies, but the V. aromatica of Guadeloupe and Brazil and other species yield vanilla. The best is grown in Mexico; and besides the countries mentioned in the diagram. Mauritius, Madagascar, Java, Fiji, &c., export small quantities. The pods of V. aromatica, thicker but shorter than the ordinary kinds, are called vanillons. The pods, usually 7 to 9 inches long, are dried and steeped in oil, generally that of the cashew nut.

VARNISH.—Varnishes consist of resinous material mixed with linseed or some other drying oil, and are then called oil varnishes, or with volatile solvents, such as alcohol, benzol, &c., constituting spirit varnishes. Shellac, benzoin, elemi, mastic and sandarac are made up into spirit varnishes such as French polish. Copal, and amber, and other hard resins are the chief ingredients of oil varnishes. The finest and lightest mastic varnish is applied to oil paintings. **(See also LACQUER).**

VARNISH.

Ault & Wiborg Co. of Canada, Ltd., Toronto.
Berry Brothers, Walkerville, Ont.
Brandram-Henderson, Ltd., Halifax, N.S., and Montreal, Que.
British American Paint Co., The, Victoria, B.C.
Canada Paint Co., Ltd., The, Montreal, Que.
Canadian Oil Companies, Ltd., Toronto, Ont., and Winnipeg, Man.
Crescent Oil Company, The, Hamilton, Ont.
Domestic Specialty Co., Ltd., Hamilton, Ont.
Dougall Varnish Co., Ltd., The, Montreal, Que.
Glidden Varnish Company, Toronto, Ont.
Harland, Wm., & Son, Toronto, Ont.
Holland Varnish Co., Ltd., Montreal, Que.
Imperial Varnish & Color Co., Ltd., Toronto.
International Varnish Co., Ltd., Toronto, Ont.
Jamieson, Jas. W., & Co., Montreal ,Que.
Jamieson, R. C., & Co., Ltd., Montreal, Que.
Mander, Bros., Montreal, Que.
Martin-Senour Co Ltd., The, Montreal, Que.
Masse Industrial Co., The, Windsor, Ont.
McColl Bros. & Co., Toronto, Ont.
Moore, Benjamin, & Co., Toronto, Ont.
Muirhead, A., Co., Ltd., Toronto, Ont.
Ottawa Paint Works The, Ottawa, Ont.
Plastics, Ltd., Toronto Ont.
Pratt & Lambert, Bridgeburg, Ont.
Ramsay, A., & Son, Co., Montreal, Que.

Scarfe & Co., Brantford, Ont.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
Stephens, G. F., & Co., Ltd., Winnipeg, Man.
Wilson, W. A., Varnish Co., London, Ont.

VASES Iron.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Shantz, P. E., Preston, Ont.
Smart, The Jas., Mfg. Co., Ltd., Brockville, Ont.
Thompson Mfg. Co., Ltd., Grand Bay, N.B.
Watson, John, Mfg Co., Ltd., Ayr, Ont.

VASES, Lawn Concrete.

Medicine Hat Concrete Products Co., Ltd., Medicine Hat, Alta.

VATS, Whey.

Anglin, S., & Co., Kingston, Ont.
Beach, The M. F. Co., Ltd., Winchester, Ont.
De Laval Dairy Supply Co., Ltd. Peterborough, Ont.
Carkner, D., & Co., Kenmore, Ont.
Marsh & Henthorn, Ltd., Belleville, Ont.
Plant, W. P., Hastings, Ont.
Richardson, C., & Co., St. Mary's, Ont.
Steel Trough & Machine Co., Ltd., The, Tweed, Ont.
Stevely, W., & Son, London, Ont.

VAULT FITTINGS, Metal.

Eclipse Mfg. Co., Ltd., Ottawa, Ont.
Office Specialty Mfg. Co., Ltd., Toronto, Ont.
Steel Equipment Co., Ltd., Ottawa, Ont.

VAULTS, Burial.

National Casket Co., Toronto, Ont.
Patterson & Chandler, Vancouver, B.C.

VAULTS and VAULT DOORS.

Ahern Safe Co., Ltd., Montreal, Que.
Dominion Safe & Vault Co., Ltd., Farnham, Que.
Goldie & McCulloch, Ltd., The, Galt, Ont.
Powers, P. J., Co., Ltd., Ottawa, Ont.

VEGETABLE HAIR, the leaf fibre of the Mediterranean palmetto. It is made into ropes, sailcloth, and carpets; and in Algeria, into paper and pasteboard. Algeria is the chief source of supply, and Madagascar also exports this fibre. Other trees in America yield a similar material.

VEGETABLE IVORY, the nuts of a plant allied to the palms, which are exported chiefly from Colombia and Ecuador, and are known as Corozo nuts and Tagua. Buttons, umbrella handles, and other small articles are made of them.

VEGETABLES, Canned.

Alvinston Canning Co., Ltd., The, Alvinston, Ont.
Beamsville Preserving Co., Ltd., Beamsville, Ont.
British Canadian Canners, Ltd., Hamilton, Ont.
Chilliwack Canning & Preserving Co., Ltd., Chilliwack, B.C.
Dominion Canners, Ltd., Hamilton, Ont.
Essex Canning & Preserving Co., Ltd., Essex, Ont.
Exeter Canning & Preserving Co., Ltd., Exeter, Ont.
Fraser Canning Co., Wallaceburg, Ont.
Fretz, Christian, Vineland, Ont.
Galetta Canning Co., Ltd., Galetta, Ont.
Kootenay Jam Co., Ltd., The, Mission City, B.C.
London Canning Co., London, Ont.
New Burford Canning Co., Ltd., Burford, Ont.
Ontario Canners, Ltd., Sarnia, Ont.
Orono Canning Co., Ltd., Orono, Ont.
Orser, J. B., & Son, Bloomfield, Ont.
Oshawa Canning Co., Ltd., The, Oshawa, Ont.
Purtelle, R. J., Canning Co., Bloomfield, Ont.
Sanitary Packing Co., Ltd., Weston, Ont.
Smith, E. D., & Son, Ltd., Vineland, Ont.
Vineland Canning Co., Vineland, Ont.
Windsor, J. W., Montreal, Que.

VELLUM. (See PARCHMENT).

VELOCIPEDES and TRICYCLES.

Gendron Mfg. Co. Ltd., Toronto, Ont.

VELVET, a silken fabric in which the warp threads are drawn up into loops. When the loops are cut the material is called cut velvet, and when they are left intact, pile velvet. Sometimes velvet consists of a silk face on a cotton basis. Mixtures of silk and cotton and cotton alone, similarly woven, are called velveteen and fustian. Lyons and Crefeld are the chief centres of the velvet industry.

VENEERS, thin sections of fancy woods for overlaying furniture. Also called scaleboards.

VENEERS.

Canada Wood Speicalty Co., Ltd., Orillia, Ont.
Dominion Mahogany & Veneer Co., Ltd., The, Montreal, Que.
Guelph Patent Cask Co., Ltd., Scotstown, Que.
Hay & Co., Ltd., Woodstock, Ont.
Lake Superior Corporation, The, Sault Ste. Marie, Ont.

VENETIAN RED.—A burnt ochre. **(See OCHRE).** This colour is now, however, made artificially.

VENETIANS. (See Cloth, Venetian).

VENTILATORS.

Arnoldi, John R., Toronto, Ont.
Brantford Oven & Rack Co., Ltd., Brantford, Ont.
Canadian Buffalo Forge Co., Ltd., Montreal.
Canadian Metal Shelter Co., Winnipeg, Man.
Canadian Sirocco Co., Ltd., Windsor, Ont.
Harris, J. M., Mfg. Co., Ltd., Montreal, Que.
Hughes, J. W., & Son, Montreal, Que.
Luxfer Prim Co., Ltd., The, Toronto, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Metallic Roofing Co. of Canada, Ltd., The, Toronto, Ont.
Ormsby, A. B. Co., Ltd., Toronto, Ont.
Pearson, G., D., & Co., Montreal, Que.
Pease-Waldron Co., Ltd., Winnipeg, Man.
Pease Foundry Co., Ltd., Toronto, Ont.
Pedlar People, Ltd., Oshawa, Ont.
Reed, Geo. W., & Co., Ltd., Montreal, Que.
Sheldon's, Ltd., Galt, Ont.
Toronto Furnace & Crematory Co., Ltd., The, Toronto, Ont.
Tuttle & Bailey Mfg. Co., Bridgeburg, Ont.
Waterman Waterbury Co., Ltd., Windsor, Ont.
Wheeler & Bain, Toronto, Ont.

VERBENA, OIL OF.—A name for lemon-grass oil. **(See GRASS OILS).**

VERDIGRIS, acetate of copper, used as a green pigment, and in the preparation of other green colours. It is manufactured largely in the south of France by the action of acetic acid on sheets of copper. The verdigris of Montpellier and the verdigris of Grenoble are somewhat different in character.

VERDITER, hydrated oxide of copper, made by adding lime to a solution of a salt of copper. It is of a blue colour, and is used in pigments and paper-staining. Green verditer, made by boiling the blue pigment, is of little value.

VERMICELLI. (See MACARONI).

VERMILION, a beautiful red pigment, obtained by grinding pure pieces of cinnabar, sulphide of mercury. It is, however, generally made artificially by combining mercury and sulphur. The best is Chinese vermilion, which may be natural.

VERMOUTH, a bitter made of white wine, absinthe, gentian, and other roots. It is made in France, but the vermouth of Turin has the highest reputation.

VESTMENTS, Church.

Blake, W. E., & Son, Toronto, Ont.

VESTS.

Canadian Converters Co., Ltd., The, Montreal.
Randall & Johnston, Ltd., Toronto, Ont.

VETCHES.—Various species of vetch are cultivated, like tares, for cattle fodder.

VETERINARY PREPARATIONS.

Canadian Stock Food Co., Ltd., Calgary, Alta.
Carbon Oil Works, Ltd., The, Winnipeg, Man.
Commercial Oil Co., Ltd., Hamilton, Ont.
Hackney Stock Food Co., Toronto, Ont.
International Stock Food Co., Ltd., Toronto.
Jenkins, W. A., Mfg. Co., London, Ont.
Pratt Food Co. of Canada, Ltd., The, Toronto.
Wampole, Henry K., & Co., Ltd., Perth, Ont.

VETIVES, the dried roots of kuskus grass.

VEVEY, a kind of cigar or cheroot, made at Vevey and other towns on the lake of Geneva.

VIALS, Glass.

Beaver Flint Glass Co., Ltd., Toronto, Ont.

VICUNA.—The vicuna is an American wild animal of the same genus as the llama and alpaca, and closely allied to the camel. It frequents the more desolate parts of the Cordillera of the Andes, and yields a more valuable wool than the alpaca.

VINEGAR.—Vinegar is diluted acetic acid, and good vinegar is made from the fermentation of malt, and in wine countries from poor sour wine. Fruit, beetroot, &c., can be used for the purpose, and sometimes alcohol is the material. When the foreign matter is removed by distillation, the liquid is called distilled vinegar, but what is generally sold under this name is an acetic acid distilled from wood. It is quite wholesome, but has not the agreeable flavour of other vinegars. In industries, vinegar or acetic acid is used in the manufacture of sugar of lead, albumen, verdigris, &c. For culinary purposes it is flavoured with tarragon, shalots, chillies, &c., and toilette vinegars are made by addition of essences of flowers, barks, and other perfumes.

VINEGAR.

Annapolis Valley Vinegar Co., Bridgetown, N.S.
Allen, S., Ltd., Norwich, Ont.
Belleville Cider & Vinegar Co., Belleville, Ont.
Biggs Fruit & Produce Co., Ltd., The, Burlington, Ont.
Blackwood's, Ltd., The, Winnipeg, Man.
Delormier Vinegar Works Co., Hamilton, Ont.
Dyson Company, The, Winnipeg, Man.
Empress Mfg. Co., Ltd., Vancouver, B.C.
Graves, M. W. & Co., Bridgetown, N.S.
Heinz, H. J., Co., Leamington, Ont.
Hillrust Wine Mfg. Co., Ltd., Thorold, Ont.
Imperial Vinegar & Pickling Co. of Hamilton, Ltd., Hamilton, Ont.
Lea's, Ltd., The, Simcoe, Ont.
Lion Vinegar Co., Ltd., Montreal, Que.
McCready, T., & Sons, Ltd., St. John, N.B.
National Drug & Chemical Co., of Canada, Ltd., Montreal Que.
Pioneer Vinegar Co Ltd., Edmonton, Alta.
Port Dover Evaporating Co., Port Dover, Ont.
Queen City Vinegar Co., Ltd., Toronto, Ont.
Robinson, D. E., & Co., Ingersoll, Ont.
St. Lawrence Vinegar Mfg. Co., Quebec, Que.
Stouffville Cider & Vinegar Mfg. Co., Ltd., The, Stouffville, Ont.
Taylor & Pringle Co., Ltd., Owen Sound, Ont.
Whitby Fruit & Vegetable Co., Whitby, Ont.
Wilson, Lytle, Badgerow Co., Ltd., The, Toronto, Ont.

VINHATICE, a Brazilian wood.

VIOLET WOOD, a name for Kingwood.

VISES, Bench.

Brown, Boggs Co., Ltd., Hamilton, Ont.
Decbul Tools, Ltd., Montreal, Que.
National Machinery & Supply Co., Ltd., Hamilton, Ont.
Richards-Wilcox Canadian Co., Ltd., London, Ont.
Smart, The Jas. Mfg. Co., Ltd., Brockville, Ont.
Stevens Co. of Galt, Ltd., The, Galt, Ont.

VISES, Horseshoers'.

Jardine, A. B., & Co., Hespeler, Ont.
London Foundry Co., Ltd., The, London, Ont.
Thompson Mfg. Co., Ltd., Grand Bay, N.B.

VISES, Machine.

Ford-Smith Machine Co., The, Hamilton, Ont.
National Machinery & Supply Co., Ltd., Hamilton, Ont.
Smart, The Jas. Mfg. Co., Ltd., Brockville, Ont.

VISES, Pipefitters'.

Butterfield & Co., Rock Island, Que.
General Fire Extinguisher Co., Montreal, Que.

VITRIOL.—For green vitriol, **(See COPPERAS)**; for blue vitriol, **(See ZINC)**. Oil of vitriol, or vitriol simply, is sulphuric acid.

VULCANITE, or vulcanised india-rubber. Vulcanite, or ebonite, is india-rubber mixed with about a third of its weight of sulphate, and heated, when it becomes hard and horny. If only a small proportion of sulphur be added and the mixture is subjected to a lewor temperature, soft vulcanised india-rubber is produced. Talc French chalk, litharge, asphalt, and a number of other substances are generally added. Beltings, fire-hose, washers, and many other articles are made of soft vulcanised india-rubber, and combs, paper-knives, buttons, and other small articles of vulcanite.

VULTURE FEATHERS. (See OSTRICH FEATHERS).

W

WADDING, Cotton.

Dominion Wadding Co., Ltd., Montreal, Que.

WAGONS and CARTS, Children's' Express.

Ben Hur Mfg. Co., Ltd., Hamilton, Ont.
Gignac, J. H., Ltd., Quebec, Que.
Gendron Mfg. Co., Ltd., Toronto, Ont.
Taylor, Scott & Co., Ltd., Toronto, Ont.
Woodstock Wagon Mfg. Co., Ltd., Woodstock, Ont.

WAGONS, Dumping.

Adams Wagon Co., Ltd., Brantford, Ont.
American Road Machine Co. of Canada, Ltd., Goderich, Ont.
Bain Wagon Co., Ltd., Woodstock, Ont.
Hamburg American Wagon Co., Ltd., New Hamburg, Ont.
McFarlane's Wagon Works, Nashwaaksis, N.B.

WAGONS, Farm.

Adams Wagon Co., Ltd., Brantford, Ont.
Bain Wagon Co., Ltd., Woodstock, Ont.
Bruce Agricultural Works, The, Teeswater, Ont.
Campbell, Geo., & Sons, Ltd., Sackville, N.B.
Desjardins, La Cie., St. Andre, Kamouraska Co., Que.
Gleeson Bros., London, Ont.
Hamburg American Wagon Co., Ltd., New Hamburg, Ont.
Heard, John, & Co., St. Thomas, Ont.
Jackson Wagon Co., Ltd., St. George, Ont.
Latour & Frere, Lesage, Que.
Massey-Harris Co., Ltd., Toronto, Ont.
McFarlane's Wagon Works, Nashwaaksis, N.B.
Petrolia Wagon Co., Ltd., Petrolia, Ont.
Tudhope-Anderson Co., Ltd., Orillia, Ont.
Whitaker, Wm., & Sons, Oakville, Ont.
Woodstock Wagon Mfg. Co., Ltd., Woodstock, Ont.

WAGONS, Freight, Coal, Heavy Express, Etc.

Adams Wagon Co., Ltd., Brantford, Ont.
Bain Wagon Co., Ltd., Woodstock, Ont.
Chatham Malleable & Steel Mfg. Co., Chatham, Ont.
Collett's Carriage Works, Toronto, Ont.
Gleeson Bros., London, Ont.
Montreal Carriage Works, Montreal, Que.
Ottawa Car Co., Ltd., Ottawa, Ont.
Paterson, J. D., & Co., Hamilton, Ont.
Petrolia Wagon Co., Ltd., Petrolia, Ont.
Smith Brothers, Toronto, Ont.
St. Lawrence Wagon Co., Ltd., Montreal, Que.
Whitaker, Wm., & Sons, Oakville, Ont.

WAGONS, Light Delivery, Spring, Baggage, Etc.

Adams Wagon Co., Ltd., Brantford, Ont.
Bain Wagon Co., Ltd., Woodstock, Ont.
Barrie Carriage Co., Ltd., Barrie, Ont.
Brantford Carriage Co., Ltd., Brantford, Ont.
Brown, S., Toronto, Ont.
Boyce Carriage Co., Ltd., Winnipeg, Man.
Bonhomme, Jas., Montreal, Que.
Campbell, Geo., & Sons, Ltd., Sackville, N.B.
Campbell, John, & Sons, London, Ont.
Canada Carriage Co., Brockville, Ont.
Collett's Carrage Works, Toronto, Ont.
Crow, T. A., Toronto, Ont.
Dominion Carirage Co., West Toronto, Ont.
Dougall, John F., Winnipeg, Man.
Dufour, Joseph, Ottawa, Ont.
Finnegan Carriage & Wagon Co., Ltd., Belleville, Ont.
Gray-Sons-Campbell, The, Wm., Ltd., Chatham, Ont.
Greer, A. B., London, Ont.
Hebey Carriage & Harness Co., Ltd., Montreal.
Jennings, A., & Co., Montreal, Que.
Latour & Frere, Lesage, Que.
Lawrie Wagon & Carriage Co., Ltd., Winnipeg, Man.
Lewis Carriage Works, Ltd., Winnipeg, Man.
McKenzie Carriage Works, Brandon, Man.
McLaughlin Carriage Co., Ltd., Oshawa, Ont.
Montreal Carriage Works, Montreal, Que.
Munro & McIntosh Carriage Co., Ltd., Alexandria, Ont.
O'Neil, J. N., Georgetown, Ont.
Ottawa Car Co., Ltd., Ottawa, Ont.
St. Lawrence Wagon Co., Ltd., Montreal, Que.
Simpson The I., Mfg. Co., Ltd., Brantford, Ont.
Smith Brothers, Toronto, Ont.
Thompson, W. J., & Sons, London, Ont.
Tudhope Carriage Co., Ltd., Orillia, Ont.
Vancouver Carriage & Implement Co., Vancouver, B.C.
Watson Carriage Co., Ltd., Ottawa, Ont.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.
Whitaker, Wm., & Sons, Oakville, Ont.

WAINSCOT OAK.—Logs of the Turkey oak are exported from Russia for furniture and for panelling rooms.

WAINSCOTING, Composition.

Canadian Flexolite & Construction, Ltd., Winnipeg, Man.
Canadian Pyrofugant Flooring Co., Ltd., The, Berlin, Ont.

WAINSCOTING, Marble and Slate.

Canada Glass Mantels & Tiles, Ltd., Toronto.

WAISTS, Corset.

Crompton Corset Co., Ltd., Toronto, Ont.
Dominion Corset Co., Quebec, Que.
Parisian Corset Mfg. Co., Ltd., Quebec, Que.

WAISTS, Ladies'.

Allen Manufacturing Co., Ltd., Toronto, Ont.
Atlas Garment Manufacturing & Trading Co., Montreal, Que.
Bolsby Manufacturing Co., Toronto, Ont.
Brock, W. R. Co., Ltd., Toronto, Ont.
Caldecott Bros., Toronto, Ont.
Canadian Converters Co., Ltd., Montreal, Que.
Canadian Underskirt Co., Ltd., Toronto, Ont.
Canadian Waist Co., Montreal, Que.
Clayson Co., Ltd., Toronto, Ont.
Colonial Whitewear Co., Ltd., Guelph, Ont.
Crescent Mfg. Co., Montreal, Que.
Cummings, D. H., Montreal, Que.
Dalton Mfg. Co., Ltd., Toronto, Ont.
Daniel, F. C., Co., Toronto, Ont.
Diamond Whitewear Co., Ltd., Three Rivers, Que.
Doherty Mfg. Co., Toronto, Ont.
D. & R. Silk Waist Co., Montreal, Que.
Eclipse Whitewear Co., Ltd., Toronto, Ont.
Emery Mfg. Co., Edmonton, Alta.
Exclusive Ladies Wear Co., Ltd., Montreal, Que.
Fairbairn, R. D. & Co., Ltd., Toronto, Ont.
Fashion Waist, Ltd., Toronto, Ont.
Gale Mfg. Co., Ltd., Toronto, Ont.
Globe Waist Mfg. Co., Montreal, Que.
Gordon McKay Co., Ottawa, Ont.
Greenshields, Ltd., Montreal, Que.
G. & C. Whitewear Co., St. Hyacinthe, Que.
Hampton Mfg. Co., Montreal, Que.
Helena Costume Co., London, Ont.
Ideal Women's Wear, Ltd., Toronto, Ont.
Imperial Waist Co., Montreal, Que.
Jaeger, Dr. S. W. S., Co., Ltd., Montreal, Que.
Keen's Mfg. Co., Toronto, Ont.
Knox Waist Co., Toronto, Ont.
Kussner Bros., Montreal, Que.
Ladies Wear, Ltd., Toronto, Ont.
Manhattan Waist Co., Montreal, Que.
Maxwell & Co., Ltd., Toronto, Ont.
McCutcheon Waist Co., Ltd., Montreal, Que.
McElroy Mfg. Co., Ltd., Toronto, Ont.
McMullen H. & Co., Montreal, Que.
Messier, S., Montreal, Que.
Meyer Mfg. Co., Toronto, Ont.
Midland Whitewear & Costume Co., Ltd., Midland, Ont.
Miller & Sobol Co., Toronto, Ont.
National Dress Co., Arnprior, Ont.
National Waist Co., Montreal, Que.

Opera Silk Waist Co., Montreal, Que.
Pajaeu Mfg. Co., Ottawa, Ont..
Phoenix Novelty Co., Toronto, Ont.
Queen Dress & Waist Co., Ltd., Montreal, Que.
Racine, Alphonse, Ltd., Montreal, Que.
Reilly Mfg. Co., Toronto, Ont.
Reliance Garment, Ltd., Toronto, Ont.
Rettie & Smith, Ltd., Montreal, Que.
Roe, F. G., Ltd., Montreal, Que.
Royal Silk Dress & Waist Co., Montreal, Que.
Standard Ladies Wear, Toronto, Ont.
Star Whitewear, Ltd., Berlin, Ont.
Singer, Max., Montreal, Que.
Victor, A. J. & Co., Toronto, Ont.
Victor, Mfg. Co., Quebec, Que.
Winner Brand Garment, Toronto, Ont.
Winsome Waist Co., Toronto, Ont.

WAITERS, Dumb.

Cote Bros., & Burritt, Montreal, Que.
Darling Bros., Ltd., Montreal, Que.
Paquet & Godbout, St. Hyacinthe, Que.
Warden, King, Ltd., Montreal, Que.

WALKING-STICKS.—Almost all kinds of woods are used in the manufacture of walking-sticks. Malacca canes and Penang lawyers are exported from the East Indies; pimento canes and supplejacks fro mthe West Indies.

WALLABIES, small species of kangaroo, the skins of which are exported from Australia as furs and for leather. (See **KANGAROOS**).

WALL COATINGS.

Alabastine Co., Paris, Ltd., The, Paris, Ont.
Brandram-Henderson, Ltd., Halifax, N.S.

WALL COVERING, Leather.

Cotton Mfg. Co., Ltd., The, Toronto, Ont.
Peerless Leather Co., The, Berlin, Ont.

WALL PAPER AND HANGINGS.

Boxer, The Reg. N., Co., Ltd., Toronto, Ont.
McArthur, Colin & Co., Inc., Montreal, Que.
Staunton's, Ltd., Toronto, Ont.
Watson, Foster Co., Ltd., Montreal Que.

WALLPAPER, Unprinted.

Crabtree, Edwin & Sons, Ltd., Crabtree Mills, Que.
Ford, J., & Co., Portneuf Station, Que.
McArthur, Alex., & Co., Ltd., Montreal, Que.
Spanish River Pulp & Paper Mills, Ltd., Toronto, Ont.
Strathcona Paper Co., Strathcona, Ont.

WALNUT.—The common walnut, a native of Persia, grows all over the south of Europe, and in small numbers as far north as 56 deg. The wood is valued as a cabinet-wood, the roots and husks supply a wood-stain, and the nuts are eaten fresh and pickled, and yield a valuable drying oil. The timber of the black walnut of the United States is still more valuable, but the fruit is inferior. The butternut of North America yields a useful wood, not apt to split or warp, and good-flavoured nuts.

WALRUS, or Morse. There are two species of **walrus, one in the Arctic Seas, and one in the** North Pacific. Both are hunted for their skins, oil, and tusks. Nothing is equal to walrus leather for polishing bright metal surfaces, and this leather is now sometimes used in cotton ginning. Many fancy articles are also made of it, but seal leather is often substituted. The oil is more fluid than seal oil, with which it is often mixed. The tusks are remarkable for their hardness and whiteness, and are turned and carved into various trinkets.

WARDROBES.

Blonde Lumber & Mfg. Co., Ltd., Chatham, Ont.
Canada Furniture Mfrs., Ltd., Woodstock, Ont.
Crown Furniture Co., Ltd., Preston, Ont.
Ferguson, John & Sons, London, Ont.
Hespeler Furniture Co., Ltd., Hespeler, Ont.
Krug Bros. Co., Ltd., Chesley, Ont.
Lindsay Library & Office Fitting Co., Ltd., Lindsay, Ont.
Malcolm & Souter Furniture Co., Ltd., Hamilton, Ont.
Markdale Furniture Co., Ltd., The, Markdale, Ont.
Meaford Mfg. Co., Ltd., Meaford, Ont.
Oliver, J., & Sons, Ltd., Ottawa, Ont.
Paquet & Godbout, St. Hyacinthe, Que.
St. Lawrence Furniture Co., Riviere du Loup, Que.
Spiesz Furniture, Ltd., Hanover, Ont.
Stratford Chair Co., Stratford, Ont.

WASHBOARDS.

Cane, Wm., & Sons, Co., Ltd., The, Newmarket, Ont.
Eddy, The E. B., Co., Ltd. Hull Que.
Meakins & Sons Ltd, Hamilton, Ont.
Shelters, W. A., Bedford, Que.
Taylor, Scott & Co., Ltd., Palmerston, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

WASHERS.

Canadian Buffalo Forge Co., Ltd., Montreal.
Darling Bros., Ltd., Montreal, Que.
Sheldon's, Ltd., Galt, Ont.

WASHERS, Cloth, for Woollen Mills.

Karch, H. W., Hespeler, Ont.

WASHERS, Iron, Wrought Iron, Steel, Etc.

Calgary Iron Works, Ltd., The, Calgary, Alta.
Canada Steel Goods Co Ltd Hamilton Ont
Corbet Foundry Co. The Owen Sound Ont
Cowan & Britton, Ltd., Gananoque, Ont.
Fittings, Ltd., Oshawa, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Miller Bros. & Sons, Ltd., Montreal, Que.
Parmenter & Bulloch Co., Ltd., The, Gananoque, Ont.
Peck Rolling Mills, Ltd., The, Montreal, Que.
Richards-Wilcox Canadian Co., Ltd., London, Ont.
Robertson, P. L., Mfg. Co., Ltd., Milton, Ont.
Smith Foundry Co., Ltd., The, Fredericton, N.B
Starr Mfg Co., Ltd., Dartmouth, N.S.
Steel Co. of Canada, Ltd., Toronto, Ont., and Montreal, Que.
Vancouver Pipe & Foundry Co., Ltd., The, Vancouver, B.C.
Wolfe, Geo., & Sons, Ltd., Montreal, Que.

WASHERS, Lead.

Beath, W. D., & Son, Ltd., Toronto, Ont.

WASHERS, Mica.

Munsell, Eugene, & Co., Ottawa, Ont.

WASHERS, Rubber.

Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
Good Mfg. Co., Ltd., The, Niagara Falls, Ont.
Gutta Percha & Rubber, Ltd., Toronto, Ont.

WASHING BLUE. (See **PRUSSIAN BLUE**).

WASHING COMPOUNDS. (See Powders, Washing).

WASH LEATHER, a popular name for chamois leather.

WASTE, Cotton.

Canada Wool Stock Co., Ltd., Dundas, Ont.
Dominion Waste Mfg. Co., Ltd., Toronto, Ont.
Factory Waste & Metal Co., Montreal, Que.
Montreal Cotton & Wool Waste Co., Ltd., Montreal, Que.

WASTE, Wool.

Canada Wool Stock Co., Ltd., Dundas, Ont.
Dominion Waste Mfg. Co., Ltd., Toronto, Ont.
Factory Waste & Metal Co., Montreal, Que.
Montreal Cotton & Wool Waste Co., Ltd., Montreal, Que.

WATCHES.—Watches and clocks are manufactured in England, France, Germany, Austria, Switzerland, and America. Switzerland manufactures as many watches as the other countries together, and exports to the value of more than 23 million dollars. In the United States watch-making has advanced rapidly through the development of machinery for the manufacture, but the export is small.

WATCHCASES.

American Watch Case Co., Ltd., Toronto, Ont.
Ellis, P. W.. & Co., Ltd., Toronto, Ont.

WATER, Areated.

Allan, Robert, Montreal, Que.
Bigelow & Hood, Truro, N.S.
Brandon Brewing Co., Ltd., Brandon, Man.
Blackwoods, Ltd., The, Winnipeg, Man.
Calgary Brewing & Malting Co., Ltd., Calgary, Alta.
Canadian Beverages Co., Ltd., Amherst, N.S.
Christin, J., & Co., Inc., Montreal, Que.
Cocoa-Cola Co., The, Toronto, Ont.
Cummer & Son, Hamilton, Ont.
Drake, Francis, Montreal, Que.
Edmonton Bottling Works, Edmonton, Alta.
Empire Brewing Co., Ltd., Brandon, Man.
Fernie-Fort Steel Brewing Co., Ltd., Fernie, B.C.
Girouard, H., & Co., Montreal, Que.
Golden Lion Brewing Co., Ltd., Prince Albert, Sask.
Gurd, Chas., & Co., Ltd., Montreal, Que.
Havelock Bottling Co., Ltd., Sydney, N.S.
Ideal Soda Water Co., Montreal, Que.
Kelly's Ginger Ale Works, Montreal, Que.
Kirkland, L. A., Toronto, Ont.
Lethbridge Brewing & Malting Co., Ltd., Lethbridge, Alta.
McKie, S. H., & Sons, Fredericton, N.B.
McLaughlin, J. J., Ltd., Toronto, Ont.
Milloy, P. A., Montreal, Que.
Millar, Robt., Montreal, Que.
Mineral Springs, Ltd., Toronto, Ont.
Mireault, Eugene, Ottawa, Ont.
Nelson Brewing Co., Ltd., Nelson, B.C.
New Ontario Bottling Works, Sudbury, Ont.
Robillard, C., & Co., Montreal, Que.
Rowan Bros. & Co., Ltd., Montreal, Que.
Sanitaris, Ltd., Arnprior, Ont.
Saskatoon Bottling Works, Saskatoon, Sask.
Silverwood, W. A., Saskatoon, Sask.
Standard Bottling Co., Medicine Hat, Alta.
Strathcona Brewing & Malting Co., Ltd., Edmonton South, Alta.
Stewart Bottling Co., Ltd., Montreal, Que.
Stuart Co., Inc., The, Montreal, Que.
Taylor & Pringle Co., Ltd., Owen Sound, Ont.
Taylor & Tennant, Amherst, N.S.
Timmons, M., & Son, Quebec, Que.
Tune, J., & Son, London, Ont.
Union Soda Water Mfg. Co., Ltd., Toronto, Ont.
Wilson, Charles, Ltd., Toronto, Ont.

WATER, Mineral.

Canadian Mineral Water, Ltd., Toronto, Ont.
Caledonia Springs Co., Ltd., Montreal, Que.
Christin, J., & Co., Inc., Montreal, Que.
Golden Lion Brewing Co., Ltd., Prince Albert, Sask.
Gurd, Chas., & Co., Ltd., Montreal, Que.
Kelly's Ginger Ale Works, Montreal, Que.
McLaughlin, J. J., Ltd., Toronto, Ont.
Purgatives, Societe des Eaux (Riga), Montreal.
Ready's Breweries, Ltd., St. John, N.B.
Reina, Mineral Water Co., La, Montreal, Que.
Sanitaris, Ltd., Arnprior, Ont.
Standard Bottling Co., Medicine Hat, Alta.
Stewart Bottling Co., Ltd., Montreal, Que.
Taylor & Pringle Co., Ltd., Owen Sound, Ont.
Taylor & Tennant, Amherst, N.S.
Thousand Islands Mineral Water Co., Ltd., The, Brockville, Ont.
Timmons, M., & Son, Quebec, Que.
Tune, J., & Son, London, Ont.
White, Robt., & Co., Ltd., Montreal, Que.
Wilson, Charles, Ltd., Toronto, Ont.

WATER-SOFTENING SYSTEMS.

Babcock & Wilcox, Ltd., Montreal, Que.
Canadian Allis-Chalmers, Ltd., Toronto, Ont.
National Equipment Co., Ltd., Toronto, Ont.

WATER WHEELS, Horizontal and Vertical.

Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Kennedy, Wm., & Sons, Ltd., Owen Sound, Ont.
Greey, Wm., & J. G., Toronto, Ont.

WATTLE BARK.—Several Australian acacias yield bark useful in tanning, especially the Black Wattle, from which a kino is also obtained. The bark is often sold as mimosa bark.

WAX. (See **BEESWAX, CANDLEBERRY, JAPAN WAX, CARNAUBA WAX**).

WAX FIGURES.

Delfosse & Co., Montreal.

WAX, Floor.

Boston Blacking Co., Montreal, Que.
Commercial Oil Co., Ltd., Hamilton, Ont.
Langmuir, James, & Co., Ltd., Toronto, Ont.
Muirhead, A., Co., Ltd., Toronto, Ont.
Paine The J. B. Co., Ltd. Toronto, Ont

WAX, Paraffine.

British American Oil Co., Ltd., Toronto, Ont.
Canadian Oil Co.'s, Ltd., Toronto, Ont.
Empire Refining Co., Ltd., The, Wallaceburg, Ont.

WAX SPLITS.

Acton Tanning Co., Ltd., The, Acton, Ont.
Clement, Edgar (Reg.), Quebec, Que.
Clement, Max, & Sons, Quebec, Que.
Labreque, Francis, Quebec, Que.
McLean, J. J. & Sons, Hopewell, N.S.
Pouliot, A., & Co., Quebec, Que.

WEATHERSTRIPS, Metal, for Windows and Doors.

Peace, The Wm., Co., Ltd., Hamilton, Ont.
Watson-Smith Co., Ltd., The, Toronto, Ont.
Chamberlain Metal Weather Strip Co., Kingsville, Ont.

WEBBING, Blanket, Furniture and Overall.

Hamilton Cotton Co., Hamilton, Ont.
Canadian Textile & Weaving Co., Ltd., Guel Ont.

WEBBING, Boot and Shoe.

Canadian Label & Webbing Co., Ltd., Toronto.
Hamilton Cotton Co., Hamilton, Ont.

WEBBING, Corset.

Ganby Elastic Web Co., Ltd., Granby, Que.
Hamilton Cotton Co., Hamilton, Ont.

WEBBING, Cotton, Jute and Elastic.

Cobourg Matting & Carpet Co., Ltd., Cobourg, Ont.
Granby Elastic Web Co., Ltd., Granby, Que.
Hamilton Cotton Co., Hamilton, Ont.

WEBBING, Suspender and Hose Supporter.

Ganby Elastic Web Co., Ltd., Granby, Que.
Hamilton Cotton Co., Hamilton, Ont.

WEBBINGS,

Belding-Paul-Corticelli, Ltd., Montreal, Que.
Canadian Label & Webbing Co., Ltd., Toronto.
Colonial Weaving Co., Ltd., Peterborough, Ont.

WEDGES.

Canadian Warren Axe & Tool Co., Ltd., St. Catharines, Ont.
Cummings, J. W., & Son, Ltd., New Glasgow, N.S.
Hills, Allan, Edge Tool Co., Ltd., Galt, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Pink Thomas, Pembroke, Ont.
Smart, The Jas. Mfg. Co., Ltd., Brockville, Ont.
Whitman & Barnes Mfg. Co., St. Catharines, Ont.

WEEDERS.

Cockshutt Plow Co., Ltd., Brantford, Ont.
Maple Leaf Harvest Tool Co., Ltd., Tillsonburg, Ont.

WEIGHERS, Threshing Machine.

Bell, The Robt., Engine & Threshing Co., Ltd., Seaforth, Ont.
New Hamburg Mfg. Co., New Hamburg, Ont.

WEIGHING MACHINES.

Fairbanks, E. & T., & Co., Ltd., Sherbrooke, Que.
Gurney Scale Co., Hamilton, Ont.

WEIGHTS.

Fairbanks, E. & T., & Co., Ltd., Sherbrooke, Que.

WEIGHTS, Horse.

Smart, The Jas. Mfg. Co., Ltd., Brockville, Ont.

WEIGHTS, Sash. (See Sashweights).

WELDERS, Electric.

Agnew Electric Welder Co., Ltd., The, Walkerville, Ont.
Prest-O-Lite Co., The, Toronto, Ont.
Toledo Electric Welder Co., Brantford, Ont.

WELDING APPARATUS, Pipe and Rail.

Compressed Gas Co., Ltd., Vancouver, B.C.
Goldschmidt-Thermit Co., Toronto, Ont.
Prest-O-Lite Co., The, Toronto, Ont.

WELDING, with Acetylene Plant.

Compressed Gas Co., Ltd., Vancouver, B.C.
Franco-Canadian Welding Co., Toronto, Ont.
L'Air Liquide Society, Montreal, Que.
Lymburner, Ltd., Montreal, Que.
Meadows, Geo. B. Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.

WHALES.—The most valuable of all whales are the Greenland or "right" whale, and the southern right whale. In the former the plates of whalebone or baleen, which hang down from the upper jaw, have a length of about 9 feet, and in some animals considerably more. The southern right whale yields shorter plates, and other species, as the humpback and the rorquals baleen of little value. These, as well as the toothed whales—the bottle-nose, pilot, and white whales, &c.—yield oil, which, with the exception of sperm oil, are usually mixed together. The Greenland whale or Bowhead yields on an average about a hundred barrels of 26¾ gals. each, the humpback about 40, and the beluga only 1 1-3. The total whale-oil production of the world is about 2½ million gals.

WHANGEE, a cane for walking-sticks, obtained in China.

WHEAT is the most valuable of cereals. It has been grown from prehistoric times. There are many varieties of wheat. There are bearded wheats and wheats without beards. The former beging generally winter wheats, that is, sown in autumn and the latter winter wheats. Again there are red and white wheats, the former being more suitable to poor soils, while the latter yields flour of better quality. Mummy wheat is a variety with loosely formed ears. Polish wheat has very long ears and grains. Spelt is a hardy kind cultivated in the Alps and other parts of Central Europe.

Hard wheats are used in making macaroni and other fancy foods. American wheats are hard, yield little bran and are rich in carbo-hydrates (starch, etc.), of which they contain 72 per cent. against 68 per cent. in English wheat. They have a large proportion of oil, but are deficient in albuminoids as are also Egyptian and Australian wheats. The better qualities of wheat yield 80 per cent. flour or even more. The inferior only 50 to 68 per cent.

The yield of wheat per acre is greatest in the highly cultivated lands of Europe, being about 44 bushels in Denmark, 34½ in Belgium, 30 in Great Britain, and 27 in Germany. In Australian Argentine Republic, India and Southern Russia, the yield is only from 10 to 12 bushels per acre. The average yield in United States is 13½ bushels and in Canada the average yield is 18 bushels per acre. The readiness with which flour ferments makes it easily convertible into bread. Wheat bread has come into general use only within the last century.

According to the last census the production of wheat in Canada in the year 1910, was 132,077,547 bushels, of which 110,166,704 bushels were produced by the Western provinces of Manitoba, Saskatchewan and Alberta.

The world's production of wheat in 1915 amounted to 3,793.125,000 bushels of which:

	Bushels.
United States produced	1,002,029,000
Russia in Europe	833,965,000
France..	258,102,000
British India	383,376,000
Hungary	152,934,000
Italy..	170,000,000
Canada	336,258,000
Argentine Republic	178,221,000
Australia..	25,626,000
New Zealand	6,842,000

WHEAT, Rolled.

Dow Cereal & Milling Co., Ltd., Neepawa, Man.
Leitch Bros. Flour Mills, Ltd., Oak Lake, Man.

WHEELBARROWS, Farm, Garden, Canal, Railway and Contractors'.

Baird, H. C., & Son Co., Ltd., Parkhill, Ont.
Bateman-Wilkinson Co., Ltd., Toronto, Ont.
Bell, B. & Son, Co., Ltd., St. George, Ont.
Cockshutt Plow Co., Ltd., Brantford, Ont.
Cossitt Co., Ltd., The, Brockville, Ont.
Fleury's, J., Sons, Aurora, Ont.
Hantsport Fruit Basket Co., Hantsport, N.S.
London Foundry Co., Ltd., The, London, Ont.
Maxwell, David, & Sons, St. Mary's, Ont.
Meaford Wheelbarrow Co., Ltd., Meaford, Ont.
Mussen's, Ltd., Montreal, Que.
Plant, W. P., Hastings, Ont.
Shantz, P. E., Preston, Ont.
Schultz Bros. Co., Ltd., The, Brantford, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.
Verity Plow Co., Ltd., Brantford, Ont.
Vilas, W. F., Cowansville, Que.
Watson, John, Mfg. Co., Ltd., Ayr, Ont.

WHEELBARROWS, for Concrete and Foundry Work.

Bateman-Wilkinson Co., Ltd., Toronto, Ont.
Erie Iron Works, Ltd., St. Thomas, Ont.
Hamilton Facing Mills Co., Ltd., Hamilton, Ont.
Meaford Wheelbarrow Co., Ltd., Meaford, Ont.

WHEELBARROWS, Toy.

Taylor, Scott & Co., Ltd., Palmerston, Ont.

WHEELS, Buffing and Polishing.

Booth Felt Co., Ltd., The, Gananoque, Ont.
Canadian Hanson & Van Winkle Co., Ltd., Toronto, Ont.
Wells, W. W., Toronto, Ont.

WHEELS, Car.

Canada Iron Corporation, Ltd., Montreal, Que.
Canadian Car & Foundry Co., Ltd., Montreal.
Dominion Wheel & Foundries, Ltd., Toronto.
Fleck, Alexander, Ltd., Ottawa, Ont.
Marsh & Henthorn, Ltd., Belleville, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Miller Bros., & Sons, Ltd., Montreal, Que.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.
Nova Scotia Car Works, Ltd., Halifax, N.S.
Smith Foundry Co., Ltd., The, Fredericton, N.B.
Thetford Cie. Ltd., La Fonderie de, Thetford Mines, Que.

WHEELS, Carriage, (In the White).

Ackland, D., & Son, Ltd., Winnipeg, Man.
Benjamin Mfg. Co., of Yarker, Ltd., Yarker, Ont.
Chaplin Wheel Co., Ltd., Chatham, Ont.
Finlay, J., & Sons Co., Norwood, Ont.
Lariviere Cie., Ltd., La, Roxton Falls, Que.
Heard, John, & Co., St. Thomas, Ont.
McVean, O. & W., Dresden, Ont.
Ontario Wheel Co., Ltd., Gananoque, Ont.
Victoria Wheel Works, Galt, Ont.

WHEELS, Corundum, Emery and Adamite.

Adamite & Wheel Mfg. Co., Hamilton, Ont.
Brantford Emery Wheel Co., Ltd., Brantford, Ont.
Canadian Hart Wheels, Ltd., Hamilton, Ont.
Carborundum Co., Niagara Falls, Ont.
Dominion Abraisive Wheel Co., Ltd., New Toronto, Ont.
Norton Co., The, Chippewa, Ont.
Prescott Emery Wheel Co., Ltd., Prescott, Ont.

WHEELS, Fly and Gear.

Bertram, John, & Sons, Ltd., Dundas, Ont.
Gardner, Robt., & Son, Ltd., Montreal, Que.
Goldie & McCulloch Co. Ltd. The Galt, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
International Engineering Works, Ltd., Montreal, Que.

WHEELS, Iron, Grooved.

Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Lennard, E., & Sons, London, Ont.

WHEELS (Iron and Steel), for Log Trucks, Lumber, Farm Wagons and Vehicles.

Bell, B., & Son Co,. Ltd., St. George, Ont.
Tudhope-Anderson Co., Ltd., Orillia, Ont.
Watson, John, Mfg. Co. Ltd., Ayr, Ont.

WHEELS, Propeller.

Brown Machine Co., Ltd., New Glasgow, N.S.
Collingwood Shipbuilding Co., Ltd., Collingwood, Ont.
Kennedy, Wm., & Son, Owen Sound, Ont.
Lumen Bearing Co., West Toronto, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Miller Bros., & Sons, Ltd., Montreal, Que.
Muskoka Foundry Co., Bracebridge, Ont.
Noyes Machine Co., Ltd., St. John, N.B.
Polson Iron Works, Ltd., Toronto, Ont.
St. John Iron Works, Ltd., St. John, N.B.
Selby & Youlden, Ltd., Kingston, Ont.
Union Foundry & Machine Works, Ltd., St. John, N.B.

WHEELS, Ratchet and Sproket.

Bertram, John, & Sons, Ltd., Dundas, Ont.
Dodge Mfg. Co., Ltd., Toronto, Ont.
Jeffrey Mfg. Co., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Long, The E., Mfg. Co., Ltd., Orillia, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Miller Bros., & Sons, Ltd., Montreal, Que.
Muskoka Foundry Co., Bracebridge, Ont.

WHEELS, Water, Turbine. (See also Turbines, Water.)

Barber, Chas. & Sons, Meaford, Ont.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
McDougall, The John, Caledonian Iron Works Co., Ltd., Montreal, Que.
Plessisville Foundry Co., Ltd., The, Plessisville, Que.
Savoie Guay, La Compagnie, Plessisville Station, Que.
Wilson, J. C., & Co., Glenora, Ont.

WHETSTONES, (See Grindstones, Oil Scythe Stones.)

WHIPPLETREES.

Ackland, D., & Son, Ltd., Winnipeg, Man.
Canada Wheel Works, Ltd., Merritton, Ont.
Canadian Handle Mfg. Co., Ltd., London, Ont.
Heard, John, & Co., St. Thomas, Ont.
Hore, F. W., & Son, Ltd., Hamilton, Ont.
McKillop, A., & Sons Ltd., West Lorne, Ont.
Pink, Thomas, Pembroke, Ont.
Still, F. H. Mfg. Co., Ltd., St. Thomas, Ont.
Victoria Wheel Works, Galt, Ont.

WHIPPLETREES, Tubular Steel.

Canada Steel Goods Co., Ltd., Hamilton, Ont.

WHIPPLETREE TIPS.

Smart, The Jas. Mfg. Co., Ltd., Brockville, Ont.

WHIP SOCKETS.

McKinnon Dash Co., St. Catharines, Ont.
Smart, The Jas. Mfg. Co., Ltd., Brockville, Ont.

WHIPS, WHIP LASHES and WHIP STOCKS.

Brown, John E., Hamilton, Ont.
Hamilton Whip Co., Hamilton, Ont.
Lay Whip Co., Ltd., The, Rock Island, Que.
Toronto Whip Co., The, Toronto, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

WHISKEY, a spirit usually made of barley-malt, or a mixture of the two, though potatoes or any other starchy substance will answer the purpose. Pure malt whiskey is made chiefly in Scotland. About a third of malt is generally used with two-thirds of barley, oats, rye, or maizze. Much of the English production is patent-still, or "silent," spirit, which is chiefly pure alcohol extracted from any starchy substance, and lacks flavour. The Bourbon whiskey of the United States is made of wheat or corn, and was originally distilled in Bourbon county, Kentucky ,and rye also is used in the United States and Canada. On the continent of Europe large quantities of potato spirit are converted into various liquors. **(See SPIRITS).**

WHISKS, VENETIAN.—Panicles of broom-corn.

WHISKS.

Adam, John, Collingwood, Ont.
Canada Broom Co., Montreal, Que.
Meakins & Sons, Ltd., Hamilton, Ont.
Nelson, H. W., & Co., Ltd., Toronto, Ont.
Parker Broom Co., The, Ottawa, Ont.
Simms, T. S., & Co., Ltd., St. John, N.B.
Stevens, Hepner Co., Ltd., The, Port Elgin, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.
Ulley's Brush Works, Montreal, Que.
West, Taylor, Bickle & Co., Norwich, Ont.
Waterloo Broom & Brush Co., Ltd., The, Waterloo, Ont.
Woods, Walter & Co., Hamilton, Ont.

WHISTLES, Steam.

Garth Co., The, Montreal, Que.
Mitchell, The Robt., Co., Ltd., Montreal, Que.
Morrison, The Jas., Brass Mfg. Co., Ltd., Toronto, Ont.
McAvity, T., & Sons, Ltd., St. John, N.B.
National Brass, Ltd., The, London, Ont.
Penberthy Injector Co., Ltd., Windsor, Ont.

WHITEBAIT, the fry of the herring and sprat, caught chiefly in the Thames, but occasionally in other British rivers and on the continent.

WHITE LEAD. (See LEAD).

WHITE LEAD, Corroders of.

Brandram-Henderson, Ltd., Montreal, Que., and Halifax, N.S.
British America Paint Co., The, Victoria, B.C.
Carter White Lead Co. of Canada, Ltd., Montreal, Que.

WHITE LEAD, Ground in Oil.

Brandram-Henderson, Ltd., Montreal, Que., and Halifax, N.S.
Canada Paint Co., Ltd., The, Montreal, Que. and Winnipeg, Man.
Canadian Oil Co.'s, Ltd., Toronto, Ont., and Winnipeg, Man.
Eastern Paint Co., The, Ltd., Halifax, N.S.
Moore, Benjamin, & Co., Ltd., Toronto, Ont.
Muirhead, A., Co., Ltd., Toronto, Ont.
Ottawa Paint Works, The, Ottawa, Ont.
Pinchin-Johnson & Co. (Canada), Ltd., Toronto.
Ramsay, A., & Son, Co., Montreal, Que.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
Steel Co. of Canada, Ltd., Montreal, Que.
Stephens, G. F., & Co., Ltd., Winnipeg, Man.
Toronto Lead & Color Co., Ltd., Toronto, Ont.

WHITE PIGMENTS.—White lead is the most important, and in a pure form is known as Flake white. Zinc white, or oxide of zinc, is much used in house-painting, and as a water-colour is known as Chinese white. Baryta white, or sulphate of barium, is often mixed with white lead, as it helps to preserve its tint.

WHITING, a delicate fish of the cod family found off the European coasts from Norway to the Mediterranean. It is especially abundant on the south and west coasts of England and Ireland. Whiting is also the name given to chalk, ground and purified.

WHITEWEAR, Ladies' and Children's.

Allen Mfg. Co., Ltd., Toronto, Ont.
American Silk Waist Mfg. Co., Ltd., Montreal.
Beatty Mfg. Co., The, Toronto, Ont.
Bell, Field Mfg. Co., Ltd., Toronto, Ont.
Canadian Converters Co., Ltd., The, Montreal.
Crescent Mfg. Co., Ltd., Montreal, Que.
Diamond Whitewear Co., Ltd., The, Three Rivers, Que.
Eaton, The T., Co., Ltd., Toronto, Ont.
Eclipse Whitewear Co., Ltd., Toronto, Ont.
Gale Mfg. Co., Toronto, Ont.
Hayward, The F. G., Co., Toronto, Ont.
Ideal Women's Wear, Ltd., Toronto, Ont.
Ladies Mfg. Co., Ltd., Toronto, Ont.
Klein, S., Ltd., Montreal, Que.
Oxford Knitting Co, The, Woodstock, Ont .
Quebec Whitewear Mfg. Co., Quebec, Que.
Rea A,. E., & Co. Ltd.. Toronto, Ont.
Star Whitewear Mfg. Co,, The, Berlin, Ont.
Victor Mfg. Co., The, Quebec. Que.

WICK, Lamp and Stove.

Hamilton Cotton Company, Hamilton, Ont.

WILLOW RODS, thin twigs of willow used for basket-work. **(See OSIERS).** The wood of the large willow tree is used extensively for artificial limbs on account of its lightness and toughness and the fact that it is unaffected by atmospheric changes. **((See WOOD).**

WILLOWARE.

Woods, Walter, & Co., Hamilton, Ont.

WINCHES.

Canadian Yale & Towne, Ltd., St. Catharines, Ont.
Drolet, F. X., Quebec, Que.
Hamilton, Wm., Co., Ltd., Peterborough, Ont.
Hepburn, John T., Toronto, Ont.
Jeffrey Mfg. Co., Montreal, Que.
Jenckes Machine Co., Ltd., Sherbrooke, Que.
Lloyd Mfg. Co., Kentville, N.S.
Marsh & Henthorn, Ltd., Belleville, Ont.
Midland Engine Works Co., Midland, Ont.
Miller Bros., & Sons, Ltd., Montreal, Que.
Moir, W. & A., Halifax, N.S.
Pictou Foundry & Machine Co., The, Pictou, N.S.
Pink, Thos., Pembroke, Ont.
Selby & Youlden, Ltd., Kingston, Ont.
Terminal City Iron Works, Vancouver, B.C.
Windsor Foundry & Machine Co., Ltd., Windsor, N.S.

WINCEY, or Winsey, a cloth of wool with an admixture of cotton.

WINDERS, Warper and Beamer.

Karch, H. W., Hespeler, Ont.

WINDERS, Yarn.

Creelman Brothers, Georgetown, Ont.
Harley-Kay Knitting Machine Co., Ltd., Georgetown, Ont.

WINDLASSES.

Drolet, F. X., Quebec, Que.
Lunenburg Foundry Co., Ltd., Lunenburg, N.S.
Matheson, I., & Co., Ltd., New Glasgow, N.S.

WINDMILLS, Steel and Galvanized.

Dominion Supply Co., Ltd., The, Cargill, Ont.
Goold, Shapley & Muir Co., Ltd., Brantford, Ont.
Hill, A., & Co., Mitchell, Ont.
Heller-Aller Co., Ltd., Windsor, Ont.
Manitoba Engines, Ltd., Brandon, Man.
Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
Stratford Bridge & Iron Works Co., Stratford, Ont.
Watt, R., Machine Works Co., Ridgetown, Ont.
Woodstock Wind Motor Co., Ltd., Woodstock, Ont.

WINDOW FRAMES. (See Planing Mills).

WINDOW SHADE CLOTH.

(Se Cloth, Window Shade).

WINDOWS, Church and Memorial.

Allward-McCormick Glass Co., Ltd., Winnipeg, Man.
Dominion Stained Glass Co., Toronto, Ont.
Hobbs Mfg. Co., Ltd., The, London, Ont.
Luxfer Prism Co., Ltd., The, Toronto, Ont.
Lyon, The N. T., Glass Co., Ltd., Toronto, Ont.
Maritime Art Glass Works, Ltd., St. John, N.B.
McCausland, Robert, Ltd, Toronto, Ont.
Murray & Gregory, Ltd., St. John, N.B.

WINDOWS, Fireproof.

Alberta Ornametal Iron Co., Ltd., Redcliff, Alta.
British American Hardware Mfg. Co., Ltd., Toronto, Ont.
Campbell & Grill, Vancouver, B.C.
Douglas Bros., Ltd., Montreal, Que.
Galt Art Metal Co., Ltd., The, Galt, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.
Metallic Roofing Co. of Canada, Ltd., The, Toronto, Ont., and Winnipeg, Man.
Ormsby, The A. B. Co., Ltd., Toronto, Ont., and Winnipeg, Man.
Pedlar People, Ltd., The, Oshawa, Ont.
Reed, Geo. W., & Co., Ltd., Montreal, Que.
Sheet Metal Mfg. Co., Ltd., Calgary, Alta.
Winnipeg Ceiling & Roofing Co, Winnipeg, Man.
Wright, J. W., Winnipeg, Man.

WINDOWS, Hollow Steel, Fireproof.

McFarlane-Douglas Co., Ltd., Ottawa, Ont.
Riddell, John E., & Son, Hamilton, Ont.
Steel & Radiation, Ltd., Toronto, Ont.

WINDOW, Puttyless.

Puttyless Window Co., Lennoxville, Que.

WINDOWS, Kalameined.

McFarlane-Douglas Co., Ltd., Ottawa, Ont.
Metal Shingle & Siding Co., Ltd., Preston, Ont.

WIND SHIELDS, Automobile.

Auto Top & Body Co., Ltd., Toronto, Ont.
Kinzinger, Bruce & Co., Ltd., Niagara Falls, Ont.
Tallman Brass & Metal Co., Hamilton, Ont.

WINE is the fermented juice of fresh grapes. It It was made in the Eastern countries of the Mediterranean in very early times and the vine was introduced into Bergundy by the Romans, probably in the second century. The varieties of grapes are numerous and the flavor and qualities of the wine depend upon these as well as upon the climate and soil in which the grapes are grown. There are astringent, acid, full-bodied, strong and thin wines. Red wines are made from dark skinned grapes and white wines from light coloured grapes without their skins. Sweet wines contain sugar which has not been converted into alcohol during fermentation. While in drying wine almost all the sugar has been thus converted. Tokay, made from grapes which have begun to dry before being gathered, or ''vin de paille'' made from grapes dried on straw, are strong heavy wines. Natural wines contain up to about 17 per cent. of alcohol by volume, but spirits are added to sweet wines to check fermentation and some times sugar is added before fermentation to increase the strength. Port, Madeira, sherry, and Marsala contain 16 to 17 per cent., while the wines of France have about 10 per cent. In France the wines are of great variety, those of Bordeaux and Bergundy are well known. For the grand vins the grapes are carefully selected. The second gathering yields an inferior quality and the last quality is made by pressing out the juice remaining in the pulp after the crushed grapes have been drained. Germany is celebrated for its white wines of the Rhine and the Moselle; Austria for its Tokay and Hungary produces wines both white and red. Chianti, Asti and Capri are some of the best wines in Italy, and Sicily produces Marsala. The Iberian Peninsula exports heavy wines—port and sherry and Madeira, the well known wine of the same name. Outside of Europe the principal wine producing countries are British South Africa, United States and Australia. Canada produces only a small quantity known in commerce as domestic wine.

The value of importations of wine into Canada for the fiscal year ending March 31st, 1914, was $7,744,948. The exports of domestic wines in the same year were valued at $4,408.

WINES

Bright, T. G., & Co., Niagara Falls, Ont.
Girardot Wine Co., Ltd., Sandwich, Ont.
Hamilton, J. S, & Co, Brantford, Ont
Hillrust Wine Mfg. Co., Ltd., Thorold, Ont.
Horner, F. W., Ltd., Montreal, Que.
Ontario Grape Growing & Wine Mfg Co., St. Catharines, Ont.
Pelee Island Wine & Vineyard Co., Brantford, Ont.
St. David's Wine Growers' Co., Toronto, Ont.
Stamford Park Wine Co., Ltd., The, Niagara Falls, Ont.
Toussaint, A., & Co., Quebec, Que.
Vinacole, de St. Hyacinthe, La Cie, St. Hyacinthe, Que.

WINES, Unfermented.

Hillrust Wine Mfg. Co., Ltd., Thorold, Ont.
Lytle, The T. A., Co., Ltd., Toronto, Ont.
Ontario Grape Growing & Wine Mfg Co., St. Catharines, Ont.
St. Louis Preserving Co., Ltd., Montreal, Que.
Smith, E. D., & Son, Ltd., Winona, Ont.
Tune, J, & Son, London, Ont.

WINTERGREEN.—Oil of wintergreen is obtained by distillation from a plant of North America, and also from birch bark, which contains the same principle. Methyl salicylaet is sold as artificial oil of winetrgreen. The oil serves as an aromatic for perfuming soap and flavouring beverages, and in North America is a favorite domestic medicine.

WIRE.—Iron wire is made thick, in forges, and used for nails, &c., or drawn fine through a hole in a plate of steel or black diamond in a drawing-mill, when it is worked up into pins, small nails, carders, gauze, &c. Steel has to a large extent taken the place of iron for needles and hooks, strings for instruments, &c. Brass and copper wires are formed into a number of articles and gold and silver wire are employed in ornaments. The chief producing countries are Great Britain, Germany, France and the United States.

WIRE, Aluminum.

Canadian Wire & Cable Co., Ltd., Toronto.
Imperial Wire & Cable Co., Ltd., Montreal, Que.
Northern Aluminum Co., Ltd., Toronto, Ont.

WIRE, Annealed Bright.

Alberta Nail & Wire Co., Ltd., Calgary, Alta.
Dominion Iron & Steel Co., Ltd., Sydney, N.S.
Frost Wire Fence Co., Ltd., Hamilton, Ont.
Greening, The B., Wire Co., Ltd., Hamilton, Ont.
Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Laidlaw Bale-Tie Co., Ltd., Hamilton, Ont.
Morrison Steel & Wire Co., Ltd., Vancouver, B.C.
Northern Bolt & Screw Co., Ltd., Owen Sound, Ont.
Pender, Jas., & Co., Ltd., St. John, N.B.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.

WIRE, Barbed.

Banwell-Hoxie Wire Fence Co., Ltd., Hamilton, Ont.
Dominion Iron & Steel Co., Ltd., Sydney, N.S.
Frost Wire Fence Co., Ltd., Hamilton, Ont.
Ideal Fence Co., Ltd., The, Winnipeg, Man.
McGregor-Banwell Fence Co., Ltd., Walkerville, Ont.
Page Wire Fence Co., Ltd., Walkerville, Ont.
Pittsburg Perfect Fence Co., Ltd., Hamilton, Ont.
Steel Co. of Canada, Ltd., Montreal, Que.

WIRE, Black.

Canadian Tube & Iron Co., Ltd., Montreal, Que.
Dominion Iron & Steel Co., Ltd., Sydney, N.S.

WIRE, Bookbinders', Pin, Tagging and Stitching.

Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.

WIRE, Bottling, Broom and Whisk.

Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.

WIRE, Brass, Copper and Coppered.

Canada Wire & Cable Co., Ltd., Toronto.
Dodd & Struthers, Sherbrooke, Que.
Greening, The B., Wire Co., Ltd., Hamilton, Ont.
Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Imperial Wire & Cable Co., Ltd., Montreal, Que.
Phillips, Eugene F., Electrical Works, Ltd., Montreal, Que.
Robertson, P. L., Mfg. Co., Ltd., Milton, Ont.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.

WIRE CABLES.

(See Cables, Electric, Telegraph, Telephone, Cables, Galvanized Wire.)

WIRE CLOTH.

Canada Wire & Iron Goods Co., Hamilton, Ont.
Greening, The B., Wire Co., Ltd., Hamilton, Ont.
Johnson, C. H., & Sons, Ltd., Montreal, Que.
Major Mfg. Co., Ltd., The, Montreal, Que.
Munro Steel & Wire Works, Ltd., Winnipeg, Man.

WIRE CLOTH, Brass, for Paper and Pulp Mills.

Capital Wire Cloth & Mfg. Co., Ltd., Ottawa, Ont.

WIRE, Clothes Line.

Steel Co. of Canada, Ltd., Montreal, Que.
Western Wire & Nail Co., Ltd., London, Ont.

WIRE, Coiled.

Canadian Steel & Wire Co., Ltd., Hamilton, Ont.
Frost Wire Fence Co., Ltd., Hamilton, Ont.
Graham Nail Works, The, Toronto, Ont.
Ideal Fence Co., Ltd., The, Winnipeg, Man.
Laidlaw Bale-Tie Co., Ltd., Hamilton, Ont.
Manitoba Anchor Wire Fence Co., Ltd., The, Winnipeg, Man.
McGregor-Banwell Fence Co., Ltd., Walkerville, Ont.
New Brunswick Wire Fence Co., Ltd., Moncton, N.B.
Pittsburg Perfect Fence Co., Ltd., Hamilton, Ont.
Steel Co. of Canada, Ltd., Montreal, Que.

WIRE, Electric, Bare or Insulated.

Boston Insulated Wire & Cable Co., Hamilton, Ont.
Canada Wire & Cable Co., Ltd., Toronto.
Canadian General Electric Co., Ltd., Toronto.
Dodd & Struthers, Sherbrooke, Qne.
Frost Wire Fence Co., Ltd., Hamilton, Ont.
Canada Wire & Cable Co., Ltd., Toronto.
Imperial Wire & Cable Co., Ltd., Montreal, Qu
Phillips, Eugene F., Electrical Works, Ltd., Montreal, Que.
Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
Steel Co. of Canada, Ltd., Montreal, Que.

WIRE, Galvanized.

Banwell-Hoxie Wire Fence Co., Ltd., Hamilton, Ont.
Canadian Steel & Wire Co., Ltd., Hamilton, Ont.
Canadian Tube & Iron Co., Ltd., Montreal, Que.
Dominion Iron & Steel Co., Ltd., Sydney, N.S.
Frost Wire Fence Co., Ltd., Hamilton, Ont.
Greening, The B., Wire Co., Ltd., Hamilton, Ont.
Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Manitoba Anchor Wire Fence Co., Ltd., The, Winnipeg, Man.
Pittsburg Perfect Fence Co., Ltd., Hamilton, Ont.
Sarnia Fence Co., Ltd., Sarnia, Ont.
Steel Co. of Canada, Ltd., Montreal, Que.

WIRE, Gold and Silver.

Canadian Seamless Wire Co., Ltd., Toronto.

Lees, Geo. H., & Co., Ltd., Hamilton, Ont.

WIRE GOODS.

Andrews Wire Works of Canada, Ltd., Watford, Ont.
British Columbia Iron Fence Co., Vancouver, B.C.
Cummings Brass, Iron & Wire Co., Ltd., Winnipeg, Man.
Dennis Wire & Iron Works Co., Ltd., London, Ont.
Johnson, C. H., & Sons, Ltd., Montreal, Que.
Lamb, H. R., Fence Co., Ltd., London, Ont.
Major Mfg. Co., Ltd., The, Montreal, Que.
Munro Steel & Wire Works, Ltd., Winnipeg, Man.
McGregor-Banwell Fence Co., Ltd., Walkerville, Ont.
Page Wire Fence Co., Ltd., Walkerville, Ont.
Schmidt & Co., Winnipeg, Man.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont.
Shipway Iron, Bell & Wire Mfg. Co., Ltd., Toronto, Ont.
Winnipeg Wire & Iron Works, Winnipeg, Man.

WIRE, Hay (In Coils and Cut in Lengths).

Frost Wire Fence Co., Ltd., Hamilton, Ont.
Graham Nail Works, The, Toronto, Ont.
Greening, The B., Wire Co., Ltd., Hamilton, Ont.
Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Laidlaw Bale-Tie Co., Ltd., Hamilton, Ont.
Morrison Steel & Wire Co., Ltd., Vancouver, B.C.
Pender, Jas., & Co., Ltd., St. John, N.B.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.

WIRE, High Carbon Steel.

Greening, The B., Wire Co., Ltd., Hamilton, Ont.
Laidlaw Bale-Tie Co., Ltd., Hamilton, Ont.

WIRE, Millinery.

Canadian Bandeau Co., Toronto, Ont.
Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Walker, E. C., & Sons, Toronto, Ont.

WIRE, Nail, Rivet, Bolt and Tie.

Alberta Nail & Wire Co., Ltd., Calgary, Alta.
Greening, The B., Wire Co., Ltd., Hamilton, Ont.
Graham Nail Works, The, Toronto, Ont.
Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Laidlaw Bale-Tie Co., Ltd., Hamilton, Ont.
Northern Bolt & Screw Co., Ltd., Owen Sound, Ont.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.

WIRE, Oiled and Annealed.

Frost Wire Fence Co., Ltd., Hamilton, Ont.
Graham Nail Works, The, Toronto, Ont.
Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Laidlaw Bale-Tie Co., Ltd., Hamilton, Ont.
Robertson, P. L., Mfg. Co., Ltd., Milton, Ont.
Steel Co. of Canada, Ltd., Hamilton, Ont., and Montreal, Que.
Westminster Wire & Nail Co., Ltd., New Westminster, B.C.

WIRE, Plain, Twist and Strand, for Fencing.

Banwell-Hoxie Wire Fence Co., Ltd., Hamilton, Ont.
Steel Co. of Canada, Ltd., Montreal, Que.

WIRE ROPES AND STRANDS.

(See Ropes, Wire.)

WIRE, Soft Drawn.

Imperial Steel & Wire Co., Ltd., Collingwood, Ont.

WIRE, Spring and Mattress.

Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
McGregor-Banwell Fence Co., Ltd., Walkerville, Ont.
Robertson, P. L., Mfg. Co., Ltd., Milton, Ont.

WIRE, Steel.

Canadian Tube & Iron Co., Ltd., Montreal.
Imperial Steel & Wire Co., Ltd., Collingwood, Ont.
Imperial Wire & Cable Co., Ltd., Montreal, Que.
Manitoba Anchor Wire Fence Co., Ltd., The, Winnipeg, Man.
Robertson, P. L., Mfg. Co., Ltd., Milton, Ont.

WIRE, Stove Pipe.

Imperial Steel & Wire Co., Ltd., Collingwood, Ont.

WIRE, Tinned.

Greening, The B., Wire Co., Ltd., Hamilton, Ont.
Imperial Steel & Wire Co., Ltd., Collingwood, Ont.

WIRE, Trolley.

Canada Wire & Cable Co., Ltd., Toronto.
Phillips, Eugene F., Electrical Works, Ltd., Montreal, Que.
Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
Steel Co. of Canada, Ltd., Hamilton, Ont.

WIRES, Fourdinier and Washer for Paper Machines.

Capital Wire Cloth & Mfg. Co., Ltd., Ottawa, Ont.

WOAD.—Dyer's woad is a plant of the order Cruciferae, which yields a permanent blue dye. It has been almost entirely superseded by indigo, but is still cultivated near Boston, England, in France, and one or two other countries. It is now mixed with indigo.

WOLF.—Skins of the common wolf are exported from Russia, Sweden, and other European countries, and from North America come the darker skins. The skins are tanned as well as made into furs.

WOLFRAM, or Wolframite. **(See TUNGSTEN).**

WOLVERENE.—The glutton, or wolverene is an animal of the weasel family, which inhabits the north of Europe, Asia, and America. Its fur is of some value, and skins are obtained, chiefly in America.

WOOD is used for a variety of purposes, the greater quantity being for firewood, building and construction. The kinds that are used for this purpose differ according to different countries. Building and construction material, as well as wood for fire, is generally made out of the classes of woods most easily obtainable. Another extensive use of wood is for cabinet work. For this purpose there are certain kinds that are in general demand, such as mahogany, walnut, palisander, butternut, rosewood and boxwood. Other woods are sought after for dye-making as log wood, Brazilwood, Camwood, sappanwood and sanderswood. All these are described under separate headings.

A total of thirty-four different kinds of wood are reported as having been used by the industries of Canada. Some of these are bought in small quantities for special use. The principal varieties are as follows:

WOODBOARD. (See also Wood Pulp Board.)

Miller Bros., Co., Ltd., The, Montreal, Que.
St. Croix Paper Co., Ltd., The, Halifax, N.S
Trent River Paper Co, Ltd., The, Frankford, Ont.

WOOD PRODUCTS.

Standard Chemical Iron & Lumber Co. of Canada, Ltd., Toronto, Ont.

WOOD, Pulp.

Battle Island Paper Co., The, Bagotville, Que.
Beauce Pulp & Lumber Co., Quebec, Que.
Brompton Pulp & Paper Co., The, East Angus, Que.
Canadian Pulp & Lumber Co., Ltd., Latchford, Ont.
Charlemange & Lac Ouareau Lumber Co., Montreal, Que.
Craig, Thomas M., Sherbrooke, Que.
East Canada Power & Pulp Co., Ltd., The, Murray Bay, Que.
Eastern Townships Lumber Co., Ltd., Sherbrooke, Que.
Fletcher Pulp & Lumber Co., Sherbrooke, Que.
Grandbois, M. A., St Casimir, Que.
Guelph Patent Cask Co., Ltd., Scotstown, Que.
Inglewood Pulp & Paper Co., Musquash, N.B.
Jacques Cartier, La Cie., a Bois, Pont Rouge, Que.
July de Lotbiniere, A., Leclercville, Que.
Joly de Lotbiniere, A., Leclercville, Que.
Nicolet Falls Pulp & Lumber Co., Nicolet Falls, Que.
Oyamel Co., Quebec, Que.
Partington, The Edward Pulp & Paper Co., Ltd., St. John, N.B.
Price Bros. & Co., Ltd, Quebec, Que.
River Ouelle Pulp & Lumber Co., St. Pacombe, Que.
Spanish River Pulp & Paper Mills, Ltd., Toronto, Ont.
St. Gabriel Lumber Co., Ltd., St. Gabriel de Brandon, Que.
Trois Pistoles Pulp & Lumber Co., Trois Pistoles, Que.
Turner Lumber Pulp Wood Co., Quebec, Que.

WOOD PULP BOARDS. (See also Fibre Boards Flax Board; Wall Board Mill Board; Woodboard.

Booth, J. R., Ottawa, Ont.
Beaver Co., Ltd., Ottawa, Ont.
Grenville Board and Pulp Co., Ltd., Thorold, Ont.
Laurentide Co., Ltd., Montreal, Que.
McLeod Pulp Co., Ltd., Liverpool, N.S.
Northumberland Paper & Electric Co, Ltd., The, Campbellford, Ont.

WOODENWARE.

Briggs, E. H., Co., Ltd., Winnipeg, Man.
Cane, Wm., & Sons Co, Ltd., The, Newmarket, Ont.
Connor, J. H., & Son, Ltd., Ottawa, Ont.
Gignac, J. H., Ltd., Quebec, Que
Jackson, Jos., St. Charles de Mandeville, Que.
Kribs, W. A., Hespeler, Ont.
Keenan Woodenware Mfg. Co., Ltd, Owen Sound, Ont.
Meakins & Sons, Ltd., Hamilton, Ont.
Schultz Bros. Co., Ltd., Brantford, Ont
Stratford Mfg. Co., Ltd., Stratford, Ont.
Taylor-Scott & Co, Ltd., Palmerston, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.
Westport Woodworking Co., Ltd., Westport, Ont.

WOODCHUCKS, a name for the American marmots, the skins of which are articles of commerce.

WOOL is a modified form of hair, classed among the epidermal hairs of which it is the most important. Its distinguishing features are its slender, soft and wavy or curly structure, and as seen under the microscope, by its serrated surface. It possesses a somewhat complex physical structure, its composition in the raw state being three-fold, namely, the yoke, the fat and the cell structure proper. The yoke is a natural that is removed previous to the process of manufacture by washing. The fat is not only present in the yoke but permeates the whole fibre and gives to it the plastic and soft handle it possesses. A good deal of the fat is also removed in the preliminary processes of manufacture but sufficient is left to maintain the needed qualities. The prevailing color of sheep's wool is white, but there are races with black, brown, fawn, yellow and grey shades of wool. The distinguishing characteristics, that is, its fineness, softness, waviness and serrated surface give the wool fibre its distinctive value as a textile fibre. The serrated surface is the most characteristic of these qualities, as such surface is peculiar to the wool fibre and gives to the fibre the property of felting upon which its manufacture depends. The wool fibre is the most important of the textile fibres and has been used by man in the manufacture of clothing since prehistoric times.

It is difficult to determine where sheep originated but the first stock of the most important breeds we have to-day are indigenous to the British Isles, where sheep are known to have been kept previous to the Roman occupation. These breeds include the Lincoln, Shropshire, Cotswold, Leicester, Southdown, Suffolk, Oxford, Norfolk, Dorset, Hampshire, Cheviot, Romney-Marsh, Black-Face, Herdwick, Devon, Longwool, Exmoor, Welsh, Shetland and others. Of other breeds the Merino is the most important. The Merino is believed to have originated in Spain, although many different types of the Merino breed common to France and Germany have been established, including the Rambouillet, Delaine and others, besides the American Merino and the Cross-bred of Australia and New Zealand. Other breeds are the Angora Goat, Tunis, Persian and Karakule sheep, native to the Far East and bred to some extent in America and European countries and the Llama, Vicuna and Guanaco of South America. The total wool clip of the world is estimated at about three billion pounds annually distributed among the wool producing countries as follows: Australia 833,611,665; Russia 320,000,000; United States 320,000,000; Argentina 414,464,800 ;Uruguay 129,961,170; United Kingdlom 141,939,600; South Africa 111,720,000; France 78,000,000; Turkey and Balkin States 90,000,000; Spain 52,000,000; Germany 25,000,000; Chile 21,000,000; Algeria 33,000,000; China 50,000,000; Italy 21,500,000; Greece 14,000,000; Portugal 10,000,000; Canada 11,000,000, and the remainder from other countries, sheep being kept in practically every country in the world.

The raising of sheep in Canada has not been developed in anything like the extent common to other countries of the world, in spite of the fact that no other country in the world possesses greater natural advantages conducive to the carrying on of the industry. The sheep population of Canada is now about 2¼ million. The breeds maintained are all of British origin with the exception of the merino, which is found to some extent on the ranges of Western Canada. The total value of the sheep in Canada is estimated at $14,550,710.

Sheep are usually classed as long-wooled, medium-wooled and fine-wooled, according to the character and nature of their fleece. The long-wooled breeds common to Canada are the Leicester, Lincoln and Cotswold; the medium-wooled are the Oxford, Shropshire, Hampshire, Southdown, Dorset, Suffolk, Cheviot and Black-face, varying in length in the order named. The merino-grade or fine wooled sheep is kept to some extent in the West. The fleece of the long-wooled breeds averages 10-15 lbs. of unwashed wool, while that of the medium-wooled breeds averages from 7 to 12 lbs. of unwashed wools, the shrinkage in each case for for clean wool being from 25 to 50 per cent. The fleece of the long-wooled sorts with that of the longer of the medium-wooled is generally put through a process of combing, whereby the longer fibres are combed out and straightened and manufactured into worsted yarn, while the short fibres, noils, are used in admixture with other wools. The wool from all these breeds mentioned is used according to the quality and fineness of fabric desired. The clothing wools, derived from the finer of the medium-wooled breeds being the highest priced, ranging on the average from 18 to 25 cents per pound in the unwashed state, while the combing wools from the fleeces of the long-wooled breeds averages from 8 to 16 cents in the unwashed state.

The alpaca and mohair wools are also used extensively in the manufacture of carpets, uphostery goods, etc. Mohair is obtained from Angora Goat and alpaca from the Llama, Alpsess more lustre than other fibres.. .Mohair sess more lustre than other fifres. Mohair is pure white in color. The fibres composing the fleece are of varying lengths, the average annual growth of the long hairs which predominate being about 10 inches. The surface of the fibre is smooth. The fleece of the Angora Goat contains an intermixture of short lustreless hairs with the long hairs, amounting to from 10 to 30 per cent. of the fleece, that is known as kemp and is of no value. This short hair is gradually being eliminated by careful breeding. The widest use of mohair is in the manufacture of plush, coat linings, imitation astrakhans, ress goods, etc. The annual production amounts to about 25 million pounds, of which Turkey in Asia produces 10 million, South Africa 12½ million, and United States 2½ million.

Alpaca is grown in South America. The Llama and Alpaca are domesticated and are the most valuable of alpaca-producing breeds, the former on account of the quality and quantity of its fleece and the latter on account of the softness, fineness and quality of the wool. The average length of the alpaca fibre is about 6 ins., i.e., a one or two years growth. The larger proportion of the wool is black and brown, with a fair proportion of white, grey and brown. The fibre is very glossy, fine and soft and lends itself well to manufacture. It is used in the manufacture of high-priced alpaca cloth, the cheaper cloths of the name being made from ordinary wools or mixtures. The principal producing countries are Peru and Chile, where the annual production of alpaca amounts to about 7,000,000 pounds.

The annual production of wool in Canada is not sufficient to meet the domestic demand, although a considerable quantity of the combing wools are exported to the United States since the duty on wool going into that country was removed. The wools imported include mohair, alpaca, merino, crossbred and a fair quantity of English wools similar to that grown in Canada for admixture with domestic wool. The imports of wool during the fiscal year ending March 31, 1915, amounted to 13,195,492 pounds valued at $3,717,483, while the imports of worsted noils and tops were valued at $1,312,885. During the same period the exports of wool from Canada amounted to 5,797,158 pounds, valued at $1,398,045.

WOOL, Raw.

H. V. Andrews, 32 Church St., Toronto, Ont.
E. T. Carter & Co., 83 Front St. E., Toronto.
Wilson & Canham, Ltd., 36 Front St. E., Toronto, Ont.
W. T. Benson & Co., 164 St. James St., Montreal, Que.
John Hollam, Toronto, Ont.
John F. Cram & Sons, Carleton Place, Ont.
Long & Bisby, Hamilton, Ont.
John E. Brown, Hamilton, Ont.
Appleby & Daley, Cobourg, Ont.
Geo. Fraser, Montreal, Que.

WOOL, Pullers.

Guest Bros., Toronto, Ont.
E. T. Carter & Co., 83 Front St. E., Toronto
Canadian Hide & Skin Co., Toronto, Ont.
Wilson & Canham, Ltd., 36 Front St. E. Toronto, Ont.
John F. Cram & Son, Carleton Place, Ont.
Appletby & Daley, Cobourg, Ont.
Kimble, John, & Sons, St. John, N.B.

WOOL, Stock & Shoddies.

Smith Mfg. Co., Ltd., Toronto, Ont.
Dominion Wool Stock Mills, Toronto, Ont.
John M. Lalor, 414 Eastern Ave., Toronto, Ont.
Canada Wool Stock Co., Dundas, Ont.
Simcoe Wool Stock Co., Simcoe, Ont.
R. W. Lee, Ltd., Almonte, Ont.
Montreal Blanket Co., Montreal, Que.
Ontario Yarn Co., Markham, Ont.
B. Leckie & Co., Stratford, Ont.

WOOLENS, Blankets (White and Grey), Tweeds, Homespuns and Flannels.

J. A. Humphrey & Son, Moncton, N.B.
Little's Woolen Mill, York Mills, N.B.
Barrington Woolen Mill, Barrington, N.B.
Oxford Mfg. Co., Oxford, N.S.
St. Croix Woolen Co, Newport Station, NS.
James Hamilton & Sons, Stillman, N.S.
James Creelman & Sons, Upper Tewiacke, N.S.
G. Upton Co., Alliston, Ont.
S. B. Lehman & Sons, Almira, Ont
Rosamond Woolen Co., Almonte, Ont.
Wm. Thoburn, Almonte, Ont.
James Wylie, Almonte, Ont.
Akona Woolen Mills, Arkona, Ont.
Arnprior Felt Co., Arnprior, Ont.
Philip Dontigny, Arnprior, Ont.

M. Asselstein, Asselstein, Ont.
J. F. Gordon, Athens, Ont.
Elias A. Brubacher, Baden, Ont.
Baltimore Woolen Mills, Baltimore, Ont.
Bancroft Woolen Mills, Bancroft, Ont.
City Woolen Mills, Belleville, Ont .
Jesse Gledhill, Ben Miller, Ont.
Daniel Weber & Sons, Berlin, Ont.
J. Wolsham & Son, Bolton, Ont.
Bird Woolen Co., Ltd., Bracebridge, Ont.
Slingsby Mfg. Co., Ltd., Brantford, Ont.
Trent Valley Woolen Mfg Co, Campbellford, Ont.
Bates & Innes, Ltd., Carleton Place, Ont.
Hawthorne Mills, Carleton Place, Ont.
T. H. Taylor Co., Ltd., Chatham, Ont.
Chesley Woolen Mills, Chesley, Ont.
Mercury Mills, Ltd., Dundas, Ont.
John Slingsby ,Dunnville, Ont.
Eganville Woolen Mills, Eganville, Ont.
John Nuhn, Flesherton, Ont.
Glen Woolen Mills, Ltd., Glen Williams, Ont.
Clark Blanket Co., Ltd., Greensville, Ont.
Guelph Carpet Mills, Guelph, Ont.
Guelph Worsted Spinning Co., Guleph, Ont.
Hanover Woolen Mills, Hanover, Ont.
J. B. Morrison, Hawkesbury, Ont.
R. Forbes Co., Ltd., Hespeler, Ont
Brown & Wigle Co., Kingsville, Ont
Boyd, Caldwell & Co., Lanark, Ont.
  Mississippi Branch, Appleton, Ont.
Geo. D. Lees, Lucknow, Ont.
D. W. Green, Lyndhurst, Ont.
Madoc Woolen Mill, Madoc, Ont.
Ontario Yarn Co., Markham, Ont.
James Randall, Meaford, Ont.
Watchorn & Co Merrickville, Ont.
O'Hara & Sons, Midland, Ont.
Canadian Carpet & Comforter Co., Milton, Ont.
Mitchell Woolen Co., Mitchell, Ont.
E. Murphy, Mount Forest, Ont.
Henry Wagner, Newton, Ont.
Harrison Bros., Owen Sound, Ont.
Paris Wincy Mills, Paris, Ont.
Penman's, Ltd., Paris, Ont.
  St. Hyacinthe Branch, St. Hyacinthe, Que.
Pembroke Woolen Mills, Ltd., Pembroke, Ont.
Auburn Woolen Co., Peterboro, Ont.
Geo. Pattinson & Co., Preston, Ont.
Speedville Woolen Mills, Preston, Ont.
Logan Bros., Ltd., Renfrew, Ont.
Renfrew Textile Co., Renfrew, Ont.
Harris & Co., Ltd., Rockwood, Ont.
Brook Woolen Co., Simcoe, Ont.
Dufton's, Ltd., Stratford, Ont.
J. G. Field, Tavistock, Ont.
Standard Woolen Mills, Toronto, Ont.
Toronto Carpet Mfg. Co. Toronto, Ont.
A. E. Morrison, Brownsburg, Ont.
Methot & Frere, Cap St. Ignace, Que.
Coaticook Woolen Mills, Coaticook, Que.
Ayers, Ltd., Lachute, Que.
Montreal Blanket Co., Montreal, Que.
Magog Woolen Mills, Sherbrooke, Que.
Paton Mfg. Co., Sherbrooke, Que.
J. &. G. Black, Thurso, Que
Trenholme Woolen Mill, Trenholme, Que.
La Compagnie des Industries, Camton, Warwick, Que.

WOOLENS, Dress Goods, Cassimeres, Overcoatings, Jersey Cloth, Fine Tweeds, Beaver, Cheviots, Meltons, Etaffes, Worsteds, Serges.

J. A. Humphrey & Sons, Moncton, N.B.
Oxford Mfg. Co., Oxford, N.S.
Rosamond Woolen Co, Almonte, Ont.
Trent Valley Woolen Mfg. Co., Campbellford, Ont.
R. Forbes Co., Ltd, Hespeler, Ont
Boyd, Caldwell & Co, Ltd., Lanark, Ont.
Mitchell Woolen Co., Mitchell, Ont.
Penman's, Ltd., Paris, Ont.
Auburn Woolen Co., Peterboro, Ont.
Geo. Pattinson & Co., Preston, Ont.
Harris & Co., Ltd., Rockwood, Ont.
Staandard Woolen Co., Toronto, Ont.
Toronto Carpet Mfg. Co., Toronto, Ont.
Paton Mfg. Co., Sherbrooke, Que.

WOOLENS, Horse Clothing

J. A. Walshaw & Son, Bolton, Ont.
Slingsby Mfg. Co., Brantford, Ont
Watchorn & Co, Merrickville, Ont
Brook Woolen Co., Simcoe, Ont.
Telford & Chapman, Ltd., Rock Island, Que.
Heney Carriage & Harness Co., Montreal, Que.

WOOLENS, Kerseys.

Philip Dontigny, Arnprior, Ont.
Glen Woolen Mills, Ltd., Glen Williams, Ont.
Watchorn & Co., Ltd., Merrickville, Ont.
Renfrew Knitting Co, Ltd., Renfrew, Ont.
Russel Mfg. Co,, Russel, Ont.
A. E. Morrison, Brownsburg, Ont.
J. & G. Black, Thurso, Que.

WOOLEN, Yarns, Wool.

J. A. Humphrey & Sons, Moncton, N.B.
Little's Woolen Mill, York Mills, N.B.
Barrington Woolen Mills, Barrington, N.S.
Oxford Mfg. Co., Oxford, N.S.
Stanfield's, Ltd., Truro, N.S.
St. Croix Woolen Co, Newport Station, N.S.
James Hamilton & Sons, Stillman, N.S.
James Creelman & Sons, Upper Stewiacke, N.S.
S. B. Lehman & Son, Almira, Ont.
Boyd, Caldwell & Co, Appleton, Ont.
M. Asselstein, Asselstein, Ont.
J. F. Gordon, Athens, Ont.
Elias Brubacher, Baden, Ont.
Baltimore Woolen Mills, Baltimore, Ont.
Bancroft Woolen Mills, Bancroft, Ont.
City Woolen Mills, Belleville, Ont.
Slingsby Mfg. Co., Brantford, Ont.
John Slingsby, Dunnville, Ont.
Elora Textile Co., Elora, Ont.
Glen Woolen Mills, Glen Williams, Ont.
R. Forbes Co., Hespeler, Ont.
Geo. D. Lees, Lucknow, Ont.
D. W. Green, Lyndhurst, Ont.
Madoc Woolen Mills, Madoc, Ont.
Ontario Yarn Co., Markham, Ont.
James Randall, Meaford, Ont.
Watchorn & Co., Ltd., Merrickville, Ont.
O'Hare & Sons, Midland, Ont.
E. Murphy, Mt. Forest, Ont.
Henry C. Wagner, Newton, Ont.
Pembroke Woolen Co., Pembroke, Ont.
Speedville Woolen Mills, Preston, Ont.
Russel Mfg. Co., Russel, Ont.
J. G. Field, Tavistock, Ont.
Standard Woolen Mills, Toronto, Ont.
Toronto Yarn Spining Co., Toronto, Ont.
A. E. Morrison, Brownsburg, Que.
Methot & Frere, Cap St. Ignace, Que.
Coaticook Woolen Co., Coaticook, Que.
Paton Mfg. Co., Sherbrooke, Que.
Magog Woolen Mills, Sherbrooke, Que.

WOOLEN, Yarns (Worsted.)

R. Forbes & Co., Hespeler, Ont.
Stanfield's, Ltd., Truro, N.S.
Rosamond Woolen Co., Almonte, Ont.
Guelph Worsted Spinning Co., Guelph, Ont.
J. R. Moodie & Sons, Hamilton, Ont.
Bonner-Worth Co., Peterboro, Ont.
Toronto Yarn Spinning Co., Toronto, Ont.
Paton Mfg. Co., Sherbrooke, Que.

WOOLENS.. Flannels (Fine.)

Wm. Thoburn, Almonte, Ont.
Trent Valley Woolen Co., Campbellford, Ont.
Paris Wincey Mills, Paris, Ont.
Geo. Pattinson & Co., Preston, Ont.
Speedville Woolen Mills, Preston, Ont.

WOOLENS, Rugs (Travelling, Pullman and Fancy).

Oxford Mfg. Co., Oxford, N.S.
Rosamond Woolen Co., Almonte, Ont.
Trent Valley Woolen Co., Campbellford, Ont
Glen Woolen Mills, Ltd., Glen Williams, Ont.
R. Forbes Co., Ltd., Hespeler, Ont.
Boyd, Caldwell & Co., Lanark, Ont.
Geo. Pattinson & Co., Preston, Ont.
Paton Mfg. Co., Sherbrooke, Que.

WOOLENS, Linings.

Slingsby Mfg. Co., Brantford, Ont.
Paris Wincey Mills, Paris, Ont.

WORM SEED. (See SANTONIN).

WORMWOOD.—Common wormwood and one or two other species are used in the manufacture of absinthe. Infused they yield a wholesome tonic.

WORSTED. (See WOOL).

WRAPPERS, wrappers for woollen bales, now generally made of jute and exported from India. **(See GUNNY).**

WRAPPERS, Bottle, Corrugated Paper.

Hinde & Dauch Paper Co., of Canada, Ltd., Toronto, Ont.
Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.

WRAPPERS, Bread.

Business Systems, Ltd., Toronto, Ont.

WRAPPERS, Butter.

Business Systems, Ltd., Toronto, Ont.

WRAPPERS and DRESSING SACKS. (See also Kimonas.)

Canadian Converters Co., Ltd., The, Montreal.
Gale Mfg. Co., The, Toronto, Ont.
Kassab, The G. & S., Kimona Mfg. Co., Montreal, Que.
Stobart, Sons & Co., Ltd., Winnipeg, Man.

WRENCHES.

Butterfield & Co., Rock Island, Que.
Canadian Billings & Spencer, Ltd., Welland, Ont.
Jardine, A. B., & Co., Hespeler, Ont.
Richards-Wilcox Canadian Co., Ltd., London, Ont.
Smart, The Jas. Mfg. Co., Ltd., Brockville, Ont.
Whitman & Barnes Mfg. Co., St. Catharines, Ont.

WRINGERS, Cloth.

Canadian Steel Founderies, Montreal, Que.
Coghlin, B. J., Co., Ltd., Montreal Que.
Connor, J. H., & Son, Ltd., Ottawa, Ont.
Cowan, O. [illegible], The Estate of, Gananoque, Ont.
Cummer-Dowsell, Ltd, Hamilton, Ont.
Maxwell, David, & Sons, St. Mary's, Ont.
Thomas Bros., Ltd., St. Thomas, Ont.

WURRUS, or Waras, the yellowish red glands on the fruits of Mallotus Philippensis, furnish in India a useful colour for dyeing.

Y

YACHTS, Sailing.

Butler, M. L., Brighton, Ont.
Gidley Boat Co., Ltd., Penetanguishene, Ont.
Kingston Shipbuilding Co., Ltd., Kingston, Ont.
New Burrell-Johnson Iron Co., Ltd., The, Yarmouth, N.S.
Peterborough Canoe Co., Ltd., Peterborough, Ont.
Rathbun Company, The, Deseronto, Ont.
White, W. C., Boiler Works, Montreal, Que.

YACHTS, Steam. See also Launches, Steam).

Atchison & Company, Cornwall, Ont.
Fleming, James, St. John, N.B.
Doty Marfine Engine & Boiler Co., Ltd., Goderich, Ont.
Gidley Boat Co., Ltd., Penetanguishene, Ont.
Matheson, I., & Co., Ltd., New Glasgow, N.S.
Miramichi Foundry & Machine Works, The, Chatham, N.B.
Polson Iron Works, Ltd., Toronto, Ont.
Vancouver Ship Yard, Ltd., Vancouver, B.C.
Weir, J. & R., Ltd., Montreal, Que.

YAK, a species of ox which lives in Tibet and the adjoining highlands of Central Asia. Its long silky hair is spun into ropes and woven into tent coverings, and the soft fur on the hump into strong cloth. The white bushy tails are used in India as fly-flappers.

YAMS, the tubers of several species of Dioscorea, most of which grow within the tropics. D. sativa is the common yam of the West Indies, and D. globosa is the most esteemed kind in India. They will keep dried for some weeks, and are exported in small quantities, and yield a kind of arrowroot.

YARD MEASURES

Cowan & Britton, Ltd., Gananoque, Ont.
Toronto Woodworking Co., Toronto, Ont.

YARN, the final product of combined fibres after leaving the spinning frame or mule, is characterized by the material from which it is made, and its size by a diversified system of numbers or counts, as they are called. **(See YARNS)** in cliper on weights and measures, denoting the length and weight in fixed standards. The many kinds of yarn in commercial use, include that made from wool, cotton, hair, silk, flax, hemp, jute, sisal and manilla, including worsted, mercerized, lisle, and union yarns, all manufactured by a process of drawing out and twisting of the fibres; also artificial silk and paper yarn manufactured by chemical process, previous to the twisting and subsequent processes. All kinds of wool and cotton yarns are manufactured in Canada, although not to sufficient extent to fill requirements, while only a small quantity of yarns made from vegetable fibre are manufactured in Canada. The imports of all kinds of yarns into Canada are valued at five and a half million dollars annually, the larger proportion of the imports being from the United Kingdom. The imports of yarns into Canada during the fiscal year ending March 31, 1913, which might be taken as the latest average conditions, were as follows: Cotton, $1,911,815; woollen and worsted, $324,686; silk, $497,857; linen, $58,825; jute and hemp, $481,747.

For list of manufacturers see under cotton, wool, silk and hemp.

YARNS, Carpet, Wool, Worsted.

Glen Woollen Mills, Ltd., Glen Williams, Ont.
Guelph Worsted Spinning Co., Ltd., Guelph, Ont.
Humphrey, J. A., & Son, Ltd., Moncton, N.B.
Perth Carpet Co., Ltd., Perth, Ont
Toronto Yarn Spinning Co, Ltd., Toronto, Ont.
Wood, J. T., Brussels, Ont.

YARNS, Cotton.

Canadian Cottons, Ltd., Montreal, Que.
Carter, E. T., & Co., Toronto, Ont.
Cornwall & York Cotton Mills Co., Ltd., St. John, N.B.
Dominion Textile Co, Ltd., Montreal, Que.

Hamilton Cotton Co., Hamilton, Ont.
Montreal Cottons, Ltd., Valleyfield, Que.
Shawinigan Cotton Co., Ltd., Three Rivers, Que.
York Knitting Mills, Ltd., The, Toronto, Ont.

YARNS, Fingering and Saxony.

Bonner-Worth Co., Ltd., The, Peterborough, Ont.
Forbes, R., Co., Ltd., Hespeler, Ont.
Paton Mfg. Co. of Sherbrooke, Sherbrooke, Que.

YARNS, For Electrical Manufacturers

Cornwall & York Cotton Mills Co., Ltd., St. John, N.B.
Hamilton Cotton Co., Hamilton, Ont.

YARNS, Hosiery (Cotton). (See Cotton.)

YARNS, Knitting (Woollen). (See Woollen.)

YEAST, the brownish frothy substance used in leavening bread and in fermenting beer, &c. Its action is due to the presence of innumerable one-celled microscopic organisms, of which there are numerous species. Dried and pressed yeast is made chiefly in Germany from rye and barley malt. The yeast is treated with carbonate of ammonia, deprived as far as possible of its water, and compressed into a yellowish brittle mass, in which state it is exported.

YEAST.

Finlayson, D. J., & Son, Reg., Montreal, Que.
Fleischmann & Co., Montreal, Que.
Jersey Cream Factories, Ltd., Hamilton, Ont.

YELLOW BERRIES, berries of various species of buckthorn used in dyeing. The best are Persian berries, the fruit of Rhamnus infectoria, and from this species Avignon berries are also obtained. R. saxatilis grows in Asia Minor and the south of Europe; R. cathartica in the south of Europe and Germany.

YELLOW METAL, an alloy of copper and zinc, much used in sheathing ships' bottoms. (**See BRASS**).

YELLOW OCHRE. (**See OCHRE**).

YLANG-YLANG, an essential oil extracted from Cananga odorata, which grows in Java and the Philippines, and is cultivated in many tropical countries. It is used in perfumery, being little, if at all, inferior to attar of roses. The Manila oil is the best.

YUCCA.—The silk-grass or bear-grass of Florida, is a plant of the order Liliaceæ. From this and one or two closely allied species a fibre similar to that of the agaves and bromelias is obtained. In California paper is made of it. Manioc is often called by this name in America.

Z

ZAFFRE, impure oxide of cobalt, used in making smalt. (**See COBALT**).

ZEBRA WOOD, a light-brown wood with dark stripes, derived from a tree of Guiana. Another kind comes from Brazil.

ZEDOARY.—The roots of zerumbet, are aromatic and tonic, and serve the same purposes as ginger. They grow in India, China, and other south Asiatic countries. Some are round and others long.

ZINC.—One of the more common and important metals. The commonest ore is the sulphide, called sphalerite and zinc blende. The silicates, willemite and calamine, and the carbonite, smithsonite, also yield a considerable proportion of the zinc that is mined. Among the localities where zinc is obtained the chief are in Belgium and the Rhineland, Upper Silesia, France, Great Britain, and the United States. The metal smelted from the ore is called spelter. Zinc can be hammered out into sheets, and is used for roofing. It is also used for engraving plates and in the composition of alloys. Galvanized iron is iron dipped in molten zinc. Zinc oxide forms the pigment known as zinc white, and is an ingredient in other pigments. The sulphate, formerly known as white vitriol, is used in calico-printing, in varnishes, and in medicine. The chloride is a disinfectant and antiseptic.

The world's production of spelter in 1913 was 1,093,635 short tons. The following were the principal producing countries:—

United States	346,676
Germany	312,075
Belgium	217,928
France and Spain	78,289
Great Britain	65,197
Holland	26,811
Austria and Italy	23,928
Norway	10,237
Poland	8,339
Australia	4,105

Canada has no smelters for the deduction of spelter from zinc ores. The Canadian production of zinc ore in 1912 was 6,415 tons, most of which was mined in British Columbia and shipped to the smelters of Kansas and Oklahoma.

The importations of zinc in the fiscal year ending March 31st, 1914, were: Spelter, 117,372 cwt., and zinc in blocks, pigs, bars, sheets, rods and plates, 45,774 cwt. Zinc oxide or zinc white, 6,221 short tons. Zinc dust 357,577 lbs., and zinc sulphate and chloride 527,297 lbs.

ZINC, Battery.

Canada Metal Co., Ltd., Toronto, Ont.
Tallman Brass & Metal Co., Hamilton, Ont.

ZINC, Chloride of.

Cowan, John, & Co., Ltd., Montreal, Que.

ZINC, Ground in Oil.

Brandram-Henderson, Ltd., Montreal, Que. and Halifax, N.S.
Muirhead, A., Co., Ltd., Toronto, Ont.
Pinchin-Johnson & Co., Canada, Ltd., Toronto.
Ramsay, A., & Son, Co., Montreal, Que.
Stephens, G. F., & Co., Ltd., Winnipeg, Man

ZINC, Ground in Varnish

Muirhead, A., Co., Ltd., Toronto, Ont.
Pinchin-Johnson & Co., Canada, Ltd., Toronto.
Ramsay, A., & Son, Co., Montreal, Que.
Stephens, G. F., & Co., Ltd., Winnipeg, Man

ZINC OXIDE. (See also Oxides.)

Ramsay, A., & Son, Co., Montreal, Que.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.

CHAPTER V.

Foreign Manufacturers of Special Machinery and Supplies necessary to Canadian Industry. Importers. Manufacturers' Agents and Wholesale Houses. Wholesale Dealers and Exporters.

MANUFACTURERS OF SPECIAL MACHINERY AND SUPPLIES

The importation of machinery and other supplies into Canada is very considerable, particularly for some industries, such as that of Pulp and Paper Making, Textile Manufacturing, Mining, and Printing and Publishing. Canada is so new—or at least its development has been so comparatively recent and rapid, that she has not had time to supply all her requirements of specialized machinery and tools. Moreover, the opportunities for investment and for the employment of brains in the development of her natural resources have diverted much of the capital and skill which, in older and more settled countries, go to build up large establishments that produce specialized and high class machinery, tools and other supplies, necessary for the progressive development of a new country like Canada.

The number of firms, particularly in Great Britain and the United States, that would be glad to supply Canadian wants is much larger than could be included in this volume. But those that are making a special effort for Canadian business and are well situated to fill orders satisfactorily are not so numerous. When a manufacturer finds that he is producing a piece of machinery or other article that is well adapted to Canadian requirements, and he decides to offer it in Canada, he first makes arrangements to satisfactorily take care of any orders that may be entrusted to him, and at the same time he makes known, through the advertising columns of the periodicals covering the fields he desires to reach, the quality and nature of the goods he has to offer.

If, therefore, we give, under the head of each industry, the names and addresses of those firms, situated outside of Canada, whose advertisements have appeared in one or more of the leading Canadian specialized periodicals during the last three or four years, we will have provided the readers of this volume with information concerning all the best and most reliable foreign sources of machinery and other supplies. In this list there may appear a few firms that have gone out of business, or that have ceased to look for orders in Canada. This, however, will not apply to those whose advertisements are now running. The reference to the current advertisements, which are given in each case, will also supply our readers with a ready source of more information concerning the articles offered than can be given in this volume.

TEXTILE MACHINERY AND SUPPLIES

Textile Machinery.

Blackburn, Geo. & Sons, Limited, Nottingham, England.
Boyd, J. & T., Glasgow, Scotland.
Cole Bros., Pawtucket, R.I., U.S.A.
Crompton & Knowles Loom Works, Worcester, Mass., U.S.A. (See advt. in *Canadian Textile Journal*).
Draper Co., Hopedale, Mass., U.S.A. (See advt in *Canadian Textile Journal*).
Easton & Burnham Machine Co., Pawtucket, R.I., U.S.A
Fairbairn Lawson Coombe Barbour, Limited. Leeds, Eng. (See advt. in *Canadian Textile Journal*).
Fales & Jenks Machine Co., Pawtucket, R.I., U.S.A.
Firsching, J. A., Utica, N.Y., U.S.A.
Firth, Wm. Co., Boston, Mass., U.S.A.
Garnett, P. & C., Cleckheaton, Eng.
Gessner, David, Worcester, Mass., U.S.A. (See advt. in *Canadian Textile Journal*).
Giles, John H., Dyeing Machine Co., Amsterdam, N.Y., U.S.A. (Bleaching and Dyeing Machinery).
Gormley, Robt. W. & Co., Troy, N.Y., U.S.A.
Grosser Knitting Machine Co., New York, U.S.A.
Halton's, Thomas, Sons, Philadelphia, Pa., U.S.A.
Hetherington, John & Sons, Boston, Mass., U.S.A.
Jefferson & Bros., Philadelphia, Pa., U.S.A.
Klauder-Weldon Dyeing Machine Co., Amsterdam, N.Y., U.S.A. (See advt. in *Canadian Textile Journal*).
Lamb Knitting Machine Co., Chicopee Falls, U.S.A. (Knitting Machines). (See advt. in *Canadian Textile Journal*).
Lamb, J. K., Textile Machinery Co., Philadelphia, Pa., U.S.A. (See advt. in *Canadian Textile Journal*).
Leigh & Butler, Boston, Mass., U.S.A. (See advt. in *Canadian Textile Journal*).
Merrow Machine Co., Hartford, Conn., U.S.A. (See advt. in *Canadian Textile Journal*).
Philadelphia Textile Machinery Co., Philadelphia, Pa., U.S.A. (See advt. in *Canadian Textile Journal*(.
Potter & Johnston Machine Co., Pawtucket, R.I., U.S.A.
Richards, Atkinson, Haserick Co., Boston, Mass., U.S.A.
Sargent's, C.G. Sons, Corp., Graniteville, Mass., U.S.A. (See advt. in *Canadian Textile Journal*).
Speed & Stephenson, Boston, Mass., U.S.A.
Scott & Williams, Boston, Mass., U.S.A. (See advt. in *Canadian Textile Journal*).
Smith & Furbush Machine Co., Philadelphia, Pa., U.S.A. (See advt. in *Canadian Textile Journal*).
Spindler, E.O., New York City., U.S.A. (See advt. in *Canadian Textile Journal*).
Stafford, The Co., Readville, Mass., U.S.A. (See advt. in *Canadian Textile Journal*).
Stafford & Holt, Little Falls, N.Y., U.S.A. (See advt. in *Canadian Textile Journal*).
Steel Heddle Manufacturing Co., Philadelphia, Pa., U.S.A. (See advt. in *Canadian Textile Journal*).
Tatham, William, Limited, Rochdale, England. (Cotton waste machinery). (See advt. in *Canadian Textile Journal*).
Tompkins Bros., Co., Troy, N.Y., U.S.A. (See advt. in *Canadian Textile Journal*).
Universal Winding Co., Boston, Mass., U.S.A. (See advt. in *Canadian Textile Journal*).
Wildman Manufacturing Co., Norristown, Pa., U.S.A. (See advt. in *Canadian Textile Journal*).
Willcox & Gibbs Sewing Machine Co., New York City, N.Y., U.S.A.
Woonsocket Machine & Press Co., Boston, Mass., U.S.A.

Textile Supplies.

American Dyewood Co., New York City, N.Y., U.S.A. (Dyestuffs and Chemicals). (See advt. in *Canadian Textile Journal*).
Atteaux, F.E. & Co., Boston, Mass., U.S.A.
Barlow, John W. Co., Lawrence, Mass., U.S.A. (Loom Pickers). (See advt. in *Canadian Textile Journal*)
Cassella Color Co., New York City, N.Y., U.S.A.
Continental Latch & Needle Co., New York City, N.Y., U.S.A.
Crabb, Wm. & Co., Newark, N.J., U.S.A. (Pickers). (See advt. in *Canadian Textile Journal*).
Garland Manufacturing Co., Saco, Maine, U.S.A. (Rawhide Pickers). (See advt. in *Canadian Textile Journal*).
Haigh, H.Co., Bradford, England. (Wools, tops, noils, waste, etc.) Canadian Sales Office: H. Holdroyd, Toronto. (See advt. in *Canadian Textile Journal*).
Klipstein & Co., New York City, N.Y., U.S.A. (Dyestuffs and chemicals.)
Levinstein, I. & Co., Boston, Mass., U.S.A.
Lowell Crayon Co., Lowell, Mass., U.S.A. (See advt. in *Canadian Textile Journal*).
Marston, John P., Boston, Mass., U.S.A. (Chemicals). (See advt. in *Canadian Textile Journal*).
Parks, G.M. Co., Fitchburg, Mass., U.S.A.
Peters, E.R. & Co., Bradford, England.
Rossler & Hasslacher Chemical Co., New York City. N.Y., U.S.A.
Scaife, Wm. B. & Sons, Co., Pittsburg, Pa., U.S.A. (See advt. in *Canadian Textile Journal*).
Taylor, Chas. F., Providence, R.I., U.S.A. (See advt. in *Canadian Textile Journal*).
Watson, L.S. Manufacturing Co., Leicester, Mass., U.S.A.
Whitaker Reed Co., Worcester, Mass., U.S.A.
Wilson & Co., Barnsley, Ltd., England (Shuttles and bobbins). Represented in Canada by Lachute Shuttle Co., Ltd., Lachute, Que. (See advt. in *Canadian Textile Journal*).

PULP AND PAPER MAKERS' MACHINERY AND SUPPLIES

Pulp and Paper Machinery.

Appleton Machine Co., Appleton, Wisconsin, U.S.A.
Beloit Iron Works, Beloit, Wisconsin, U.S.A. (See advt. in *Pulp and Paper Magazine of Canada*).
Bertram, Jas., & Sons, Limited, Edinburgh, Scotland. (See advt. in *Pulp and Paper Magazine of Canada*).
Bentley & Jackson, Bury, England.
Bertram's Limited, Edinburgh, Scotland. Represented in Canada by Chambers, Ltd., Toronto. (See advt. in *Pulp and Paper Magazine of Canada*).
Bezner, Albert, Machine Works., New York City, N.Y.
Blethen, Hugh R., New York City, N.Y.
Black-Clawson Co., Hamilton, Ohio. (See advt. in *Pulp and Paper Magazine of Canada*).
Caldwell, H. W. Son Co., Chicago, Ill. (See advt. in *Pulp and Paper Magazine of Canada*).
Cameron Machine Co., Brooklyn, N.Y. (See advt. in *Pulp and Paper Magazine of Canada*).
Carthage Machine Co., Carthage, N.Y. (See advt. in *Pulp and Paper Magazine of Canada*).
Dillon Machine Co., Lawrence, Mass., U.S.A.
Emerson Mfg. Co., Lawrence, Mass. (See advt. in *Pulp and Paper Magazine of Canada*).
Ferrel Foundry & Machine Co., Ansonia, Conn., U.S.A. (See advt. in *Pulp and Paper Magazine of Canada*).
Glens Falls Machine Works, Glens Falls, N.Y. (See advt. in *Pulp abd Paper Magazine of Canada*).
Green Bay Barker Co., Green Bay, Wisconsin, U.S.A.
Hall Process Corporation, Watertown, N.Y.
Harmon Machine Co., Watertown N.Y.
Horne, J. H. & Sons Co., Lawrence, Mass., U.S.A.
Jeffrey Mfg. Co., Columbus, Ohio. Canadian Sales Office: Montreal, Canada. (See advt. in *Pulp and Paper Magazine of Canada*).
Jensen, J. & A., og Dahl of Norway, New York City, N.Y.

Pulp & Paper Machinery—(Continued).

Jones, E. D. & Sons, Ltd., Pittsfield, Mass., U.S.A (See advt. in *Pulp and Paper Magazine of Canada*).

Lawrence Pump & Engine Co., Lawrence, Mass., U.S.A.

Lawrence Machine Co., Lawrence, Mass., U.S.A. (See advt. in *Pulp and Paper Magazine of Canada*).

Marx, J. & Co., London, England. Represenred in Canada by Process Engineers, Limited, Montreal, Canada. (See advt. in *Pulp and Paper Magazine of Canada*).

Milne, Jas. & Son., Limited, Edinburgh, Scotland.

Moore & White Co., Philadelphia, Pa., U.S.A. (See advt. in *Pulp and Paper Magazine of Canada*).

Norwood Engineering Co., Florence, Mass., U.S.A. Represented in Canada by the Norwood EngineeringCo of Canada, Cowansville, P.Q. (See advt. in *Pulp and Paper Magazine of Cabada*).

Pusey-Jones Co., Wilmington, Del., U.S.A

Rice, Barton & Fales Machine & Iron Co., Worcester, Mass., U.S.A. (See advt. in *Pulp and Paper Magazine of Canada*).

Ryther & Pringle, Carthage, N.Y.

Sandy Hill Iron & Brass Works, Hudson Falls, N.Y. (See advt. in *Pulp and Paper Magazine of Canada*).

Scott, Ernest Co., Fall River, Mass., U.S.A. (See advt. in *Pulp and Paper Magazine of Canada*).

Smith, S. Morgan Co., York, Pa., U.S.A. (See advt. in *Pulp and Paper Magazine of Canada*).

Stebbins Eng. & Mfg. Co., Watertown, N.Y. (See advt. in *Pulp and Paper Magazine of Canada*).

Ticonderoga Machine Works, Ticonderoga, N.Y. (See advt. in *Pulp and Paper Magazine of Canada*).

Union Screen Plate Co., Fitzburg, Mass., U.S.A. Represented in Canada by Union Screen Plate Co. of Canada, Ltd., Lennoxville, Que. (See advt. in *Pulp and Paper Magazine of Canada*).

Valley Iron Works Co., Appleton, Wisconsin, U.S.A.

Voith. J. M., New York, N.Y. (See advt. in *Pulp and Paper Magazine of Canada*).

Walmsley, Chas. & Co., Bury, England. Represented in Canada by Chas. Johnson, Montreal. (Sss advt. in *Pulp and Paper Magazine of Canada*).

Wandel Screen Mfg. Co., Walpole, Mass., U.S.A.

West End Engine Works Co., Edinburgh, Scotland.

Pulp and Paper Makers' Supplies.

Amber Size & Chemical Co., London, England.

Ashcroft Mfg. Co., New York City, N.Y.

Atterbury Bros., New York City, N.Y.

Becker & Co., London, England. (Paper). (See advt. in *Pulp and Paper Magazine of Canada*).

Brunner, Mond & Co., London, Eng. (Chemicals). Represented in Canada by Winn & Holland, Montreal. (See advt. in *Pulp and Paper Magazine of Canada*).

Castle, Gotheil & Overton, New York City, N.Y.

Christie, Geo., Ltd., Glasgow, Scotland. (Wire Screens). Represented in Canada by J. A. Taylor, Montreal. (See advt. in *Pulp and Paper Magazine of Canada*).

Churchill & Sim, London, England.

Hooker Electrochemical Co., New York City, N.Y. (Chemicals). (See advt. in *Pulp and Paper Magazine of Canada*).

Hough, R., London, England.

Huyck, F. C. & Sons, Albany, N.Y. (Felts). (See advt. in *Pulp and Paper Magazine of Canada*).

Klipstein, A. & Co., Ltd., New York City, N.Y. (Chemicals). Canadian Sales Office: Montreal. (See advt. in *Pulp and Paper Magazine of Canada*).

Lombard & Co., Boston, Mass., U.S.A. (Pulp Stones). (See advt. in *Pulp and Paper Magazine of Canada*).

Manchester China Clay Co., Ltd., Manchester, Eng. (China Clay)(See advt. in *Pulp and Paper Magazine of Canada*).

Mardon, Alfred H., London, Eng.

Mawson, Geo., London, Eng.

Manhattan Rubber Mfg. Co., Passaic N.J.

Panzl Digester Lining Co., Muskegon, Mich., U.S.A. (Digester Lining). (See advt. in *Pulp and Paper Magazine of Canada*).

Paper Makers' Chemical Co., Easton, Pa., U.S.A. (Chemicals). (See advt. in *Pulp and Paper Magazine of Canada*).

Parsons Trading Co., New York City, N.Y. (See advt. in *Pulp and Paper Magazine of Canada*).

Preston's Digester Lining Co., Radcliffe, Eng. (Digester Lining). (See advt. in *Pulp and Paper Magazine of Canada*).

Pickles, W. F., Buckland, Conn., U.S.A. (Special steam regulator). (See advt. in *Pulp and Paper Magazine of Canada*).

Porritt, Jas. & Sons, Helmshore, Eng.

Pulp and Paper Trading Co., New York City, N.Y. (Pulp and Paper). (See advt. in *Pulp and Paper Magazine of Canada*).

Salomon, Felix & Co., New York City, N.Y. (Norwegian Pulp) (See advt. in *Pulp and Paper Magazine of Canada*).

Scandinavian American Trading Co., New York City.

Schaffer & Budenberg, Brooklyn, N.Y. (Special thermometers, gauges, etc.). (See advt. in *Pulp and Paper Magazine of Canada*).

Snell, Samuel Co., Holyoke, Mass, U.S.A. (Drainer Bottoms). (See advt. in *Pulp and Paper Magazine of Canada*).

Stancliffe Estates Co., Ltd., Darley Dale, Eng. (Pulp Stones). (See advt. in *Pulp and Paper Magazine of Canada*).

Union Sulphur Co., New York City, N.Y. (Sulphur)-(See advt. in *Pulp and Paper Magazine of Canada*).

United Alkali Co., of England. (Chemicals) Represented in Canada by Wilson-Paterson Co., Montreal. (See advt. in *Pulp and Paper Magazine of Canada*).

United Wire Works, Edinburgh, Scotland.

Vera Chemical Co., North Milwaukee, Wis., U.S.A. (Sizes). Represented in Canada by Vera Chemical Co., of Canada, Ltd., Freeman, Ont. (See advt. in *Pulp and Paper Magazine of Canada*).

Whitaker Paper Co., Cincinnati, Ohio, U.S.A.

MINING MACHINERY AND SUPPLIES

Mining Machinery.

American Diamond Rock Drill Co., 90 West St., New York City, N.Y., U.S.A. (Diamond Drills). (See advt. in *Canadian Mining Journal*).

Barlett, C. O. & Snow Co., Cleveland, Ohio.

Bennett, J. H. & Co., Sheffield, England.

Deister Concentrator Co., Fort Wayne, Ind., U.S.A.

Flory, S., Mfg. Co., Bangor, Pa., U.S.A. (Hoists, steam and Electric). Represented in Canada by Mussen's Ltd., Montreal, Que., and J. Matheson & Co., New Glasgow, N.S., (See advt. in *Canadian Mining Journal*).

Fraser & Chalmers, London, England. Represented in Canada by Fraser & Chalmers of Canada, 59 Beaver Hall Hill, Montreal, Que. (See advt. in *Canadian Mining Journal*).

Hans Renold, Ltd., Manchester, England (Chain drives). Represented in Canada by Jones & Glassco, St. Nicholas Bldg., Montreal. (See advt. in *Canadian Mining Journal*).

Harding Conical Mill Co., New York City, N.Y., U.S.A.

Hardy Patent Pick Co., Sheffield, England.

Hatfield Steel Foundry Co., Ltd., Sheffield, England.

Internation Steel Pump Co., New York City, N.Y.

Jeffrey Mfg. Co., Columbus, Ohio, U.S.A. Canadian Branch and Warerooms, Montreal, Que. (See advt. in *Canadian Mining Journal*).

James Ore Concentrator Co., 35 Runyon St., Newark, N.J. (See advt. in *Canadian Mining Journal*).

Plumb Jig Co., Denver, Colorado, U.S.A. (Concentrators) (See advt. in *Canadian Mining Journal*).

Sullivan Machine Co., 122 So. Michigan Ave., Chicago, Ill. Canadian Sales Office at Montreal, Que., Nelson, B.C., and Vancouver, B.C. (See advt. in *Canadian Mining Journal*).

Taylor, W. S. & Co., Cleveland, Ohio, U.S.A.

Walker Bros., Wigan, England.

Wilfley Mining Machine Co., Ltd., London, England.

Mining Supplies.

Allan, Whyte & Co., Glasgow, Scotland (Wire Rope). Represented in Canada by Drummond McCall & Co., Montreal; Wm. Stairs, Son & Morrow, Ltd., Halifax, N.S.; W. H. Thorne & Co., Ltd., St. John, N.B.; McLellan, McFeely & Co., Ltd., Vancouver, B.C. (See advt. in *Canadian Mining Journal*).

Ackroyd & Best, Ltd., Morley, near Leeds, England.

Ainsworth, Wm. & Sons, Denver, Colorado, U.S.A.

American Grondel Co., 120 Broadway, New York City, N.Y., U.S.A.

Balbach Smelting & Refining Co., Newark, N.J., U.S.A. (See advt. in *Canadian Mining Journal*).

Bath, Hy. & Son, London, England. (Metal Broker). See advt. in *Canadian Mining Journal*).

Baszanger, Jacques Co., New York City, N.Y., U.S.A.

Bennett, Wm. & Sons, Co., Cambourne, Cornwall, England. (Fuse).

Berger, C. L. & Sons, 27 William St., Boston, Mass., U.S.A. (See advt. in *Canadian Mining Journal*).

Blackwell, Geo. G., Sons & Co., Ltd., Liverpool, England. (Metals). (See advt. in *Canadian Mining Journal*).

Mining Supplies—(Continued).

Broderick & Bascom Rope Co., St. Louis, Mo., U.S.A.
Brown, W. B. & Co., Ltd., Liverpool, England.
Buff & Buff Mfg. Co., Jamaica Plain Station, Mass, U.S.A.
Campell, C. M., Newcastle-on-Tyne, England.
Clifford Fan Works, Jeanette, Pa., U.S.A.
Casartelli, Jos. & Son, Manchester, England.
Constant, C. L. Co., 42 New St., New York City, N.Y., U.S.A. Represented in Canada by R. B. Lamb, Traders' Bank Bldg., Toronto, Ont., (See advt. in *Canadian Mining Journal*).
Curtis & Harvey, London, England. (Explosives). Canadian office, 400 St. James St., Montreal. (See advt. in *Canadian Mining Journal*).
Davis, John & Sons, Ltd., London, England.
Diamond Drill Contracting Co., Spokane, Washington. Canadian Office, 528 Pender St. W., Vancouver, B.C. (See advt. in *Canadian Mining Journal*).
Dwight & Lloyd, Sintering Co., 29 Broadway, New York City, N.Y., U.S.A.
Hendrick Mfg. Co., Carbondale, Pa., U.S.A. (Perforated Metals). (See advt. in *Canadian Mining Journal*).
International Nickel Co., 43 Exchange Place, (Nickel). (See advt. in *Canadian Mining Journal*).
Jacobson, Richard, London, E.C., England.
Johnson, Matthey & Co., Ltd., Hatton Gardens, London, E.C., England. (Metal buyers and asseyors). (See advt. in *Canadian Mining Journal*).
Keuffel & Esser Co., Hoboken, N.J., U.S.A.
Levine, Abr., 35 Nassau St., New York City, N.Y., U.S.A. (Black diamonds and Bortz). (See advt. in *Canadian Mining Journal*).
Link Belt Co., Philadelphia, Pa., U.S.A.
Roessler & Haslacher Chemical Co., 100 William St., New York City, N.Y., U.S.A. (Chemicals). (See advt. in *Canadian Mining Journal*).
Roberts & Schaefer, Chicago, Ill., U.S.A.
Robey & Co., Ltd., Lincoln, England.
Sandicroft Foundry Co., Ltd., Sandicroft, near Manchester, England.
Schaef-Regelman, E., New York City, N.Y., U.S.A.
Smith, Thos. & Wm., Ltd., Newcastle-on-Tyne, England. (Steel wire ropes). Represented in Canada by Canadian B. K. Morton Co., Ltd., 49 Common St., Montreal, and 86 Richmond St. E., Toronto; also by Evans, Coleman & Evans, Ltd., Vancouver, B.C.; and General Supplies Ltd., Calgary, Alta. (See advt. in *Canadian Mining Journal*).
Standard Diamond Drill Co., 745 First National Bank Bldg., Chicago, Ill. (See advt. in *Canadian Mining Journal*).
Stanley, W. F. & Co., Ltd., 286 High Holborn, London, W.C., England. (Surveying and drawing instruments). (See advt. in *Canadian Mining Journal*).
Swedish Steel & Importing Co., Ltd., Canadian Office, Montreal, Que.
United States Smelting Co., Salt Lake City, Utah, U.S.A.

PRINTERS' MACHINERY AND SUPPLIES

American Type Foundry Co., Jersey City N.J., U.S.A. (Type).
Auto, Falcon & Waite Press Co., New York, N.Y., U.S.A. (Platen presses, etc.)
Babcock Press Mfg. Co., New London, Conn., U.S.A. (Flatbed presses).
Bernhart Bros. & Spindler, Chicago, Ill., U.S.A. (Type).
Brown Folder Machine Co., Erie, Pa., U.S.A. (Folders).
Chandler & Price, Cleveland, Ohio, U.S.A. (Presses and Cutters).
Cleveland Folder Co., Cleveland, Ohio, U.S.A. (Folders).
Cottrell, C.B. & Sons, Co., Westerley, R.I., U.S.A. (Magazine and special presses).
Dexter Folder Co., New York City, N.Y. (Cutters and Folders).
Duplex Printing Press Co., Battle Creek, Mich. (Duplex and other newspaper presses).
Goss Printing Press Co., Chicago, Ill., U.S.A. (Newspaper and magazine presses).
Hamilton Manufacturing Co., Two Rivers, Wis., U.S.A. (Wood type and Composing Room Furniture).
Hoe, R., & Co., New York City, N.Y. (Newspaper presses).
Huber-Hodgeman Printing Press Co., (now incorporated with Michle Printing Press & Mfg. Co.)
International Typesetting Machinery Co., New York City, N.Y., U.S.A., (Typesetting machines).
Keystone Type Foundry Co., Philadelphia, Pa., U.S.A. (Type and printers' furniture and supplies).
Lanston Monotype Machine Co., Philadelphia, Pa., U.S.A. (Typesetting machines).
Mergenthaler Linotype Co., New York City, N.Y., U.S.A. (Typesetting machines).
Mentges Folding Co., Sydney, Ohio, U.S.A. (Folders).
Michle Printing Press & Mfg. Co., Chicago, Ill., U.S.A.
Oswego Machine Works, Oswego, N.Y., U.S.A. (Cutters).
Rosback, F. B., Benton Harbour, Mich, U.S.A. (Stitchers and bookbinding machinery generally).
Royle, John & Son, Patterson, N.J., U.S.A. (Photo engraving machinery).
Scott, Walter & Co., Plainfield, N.J., U.S.A., (Newspaper presses).
Seybold Machine Co., Dayton, Ohio, U.S.A. (Cutters and bookbinders machinery).
Sheridan, T. B. & Co., New York City, N.Y., U.S.A. (Cutters and specialties).
Southworth Machine Co., Portland, Me., U.S.A. (Paper punches).
Thomson, John, Press Co., New York City, N.Y., U.S.A. (Platen presses).
Wesel, F., Manufacturing Co., New York City, N.Y., U.S.A., (Photo engraving, stereotyping, and electrotyping machinery, and printers' supplies.)

Wholesalers and Manufacturers' Agents in Canada—

Anglo-Canadian Type & Printing Machinery Co., Ltd., Toronto, Ont.
Logan, H., Toronto, Ont. (Bookbinders supplies).
Miller & Richard, Toronto, Montreal and Winnipeg.
Morrison, J. L., Toronto, Ont.
Stephenson & Blake, Toronto, Ont.
Stewart, G. M., Montreal, P.Q.
Toronto Type Foundry Co., Limited, Toronto, Montreal, Winnipeg and Calgary.

FISHERMEN'S SUPPLIES

Caille Perfection Motor Co., Detroit, Mich., U.S.A. (See advt. in *Canadian Fisherman*).
Detroit Marine Engine, Detroit, Mich., U.S.A. (See advt. in *Canadian Fisherman*).
Lyons, Chas., Company, New York, N.Y., U.S.A. (See advt. in *Canadian Fisherman*).
Michigan Steel Boat Co., Detroit, Mich., U.S.A. (See advt. in *Canadian Fisherman*).
Mustad, O. & Son, Christiania, Norway. (See advt. in *Canadian Fisherman*).
Noble, Chas., Jr. Co., Buffalo, N.Y. (See advt. in *Canadian Fisherman*).
Remington Oil Engine Co., New York, N. Y., U.S.A. (See advt. in *Canadian Fisherman*).
Standard Motor Construction Co., Jersey City, N. J., U.S.A. (See advt. in *Canadian Fisherman*).
Walker, Thos. & Son, Ltd., Birmingham, England. (See advt. in *Canadian Fisherman*).

Importers and Manufacturers' Agents of Ready-to-Wear Garments, Furs, Dress Accessories, Carpets, House Furnishing, Fancy Goods, Silks and Millinery. *

Halifax, N.S.—
Grant Bros., 68 Granville.

Hamilton, Ont.—
Yorick, Chas. E., 51 South W. Ave.

Montreal, Que.—
Allan, J. A., St. Nicholas Bldg.
Atkinson, Geo. W., 10 Victoria.
Auger, L. E., Sommer Bldg.
Barette, E. O. & Co., 301 St. James.
Barrett, John, 6 St. Sacrament.
Bell, Duncan, Ltd., 301 St. James.
Bender & McNaughton, 43 St. Sacrament.
Bishop, Geo. H., 301 St. James.
Black, John, 43 St. Sacrament.
Blackburn, G. E. & Son, 43 St. Sacrament.
Braithwaite, H., Sommer Bldg.
Brophy, Thos. & Sons, Herald Bldg.
Bruce Bros., 9 St. Nicholas.
Bye, H.V., 138 Bleury.
Campbell, Smibert & Co., 329 Craig W.
Chorlton, D.M., 149 Notre Dame W.
Chorlton, H.M., 43 St. Sacrament.
Cook, D.W., 6 St. Sacrament.
Couch, A. B., 43 St. Sacrament.
Coyle & Rodger, 230 McGill.
Croil, Jas. & Son, St. Nicholas Bldg.
Cummings & Fraser, 84 St. Francois Xavier.
Danford Bros., 518 St. Catherine W.
Dawson, Geo., 10 Victoria.
DeGruchy, P & Son, 207 St. James.
Dennison, W. A., 563 St. Catherines W.
Dickson, W. A. & Co., Coristine Bldg.
Docker, J., 248 Notre Dame W.
European Novelty Co., 46 St. Alexander.
Evans & Evans, Sommer Bldg.
Fiedler, H., 314 Notre Dame W.
Fogerty & Paterson, 364 University.
Foster, E., Coristine Bldg.
Fraser, Mather & Co., 42 St. Sacrament.
Gagnon, J. H., Unity Bldg.
Geller, G. M. & Co., Coristine Bldg.
Gendron, A. J., 16 McGill College Ave.
Germain & Smith, Limited, 43 Union Ave.
Gilpin, A. L., 243 Bleury.
Glassford Bros., 70 St. Antoine.
Gordon, John & Son, 316 St. James.
Gunther, Ph., Windsor Hotel.
Haldimand, Louis W., 11 St. Sacrament.
Hamilton, H. J. B., 43 St. Sacrament.
Hart, P. B., 1 Hudson Ave., Westmount.
Haskell & Elliott, 42 St. Sacrament.
Henderson, H. L., Coristine Bldg.
Henderson & Smyth, Ltd., 507 Read Bldg.
Hird, S., 313 Craig W.
Hodges, Gordon K., 232 McGill.
Horne, E. H. & Co., 30 St. Francois Xavier.
Howard, Thos. E., Coristine Bldg.
Hurd, W. C., 243 Bleury.
Jones & Costello, Coristine Bldg.
Kennedy, W. A., 10 Victoria.
King, Fred. & Son, Read Bldg.
Kyle, Son & Co., Read Bldg.
LeMaistre, P. M., 10 Victoria.
Lewis, Chas. W., 10 St. Peter.
Lotery, J., 248 Notre Dame W.
MacFarlane & Drew, St. Paul & St. Nicholas.
MacGachen, P., 46 St. Alexander.
Macoun, Wm. F., Lindsay Bldg.
Macpherson & Wright, 232 McGill.
McBoyle, J. C., 43 St. Sacrament.
McEwan, R. G., Coristine Bldg.
McFayden, Valiquet & Shea, 59 St. Peter.
McMartin, E. W., Read Bldg.
Moore, Luke F., Coristine Bldg.
Morison, S. M., 16 McGill College Ave.
Morrice, D. & Co., Ltd., 28 Victoria.
Morris, A. A., 46 St. Alexander.
Motherwell, G. Victor, 137 McGill.
Mudge, E. W. & Co., 32 St. Peter.
Nadeau, L. A. (*Reg'd.*) St. Nicholas Bldg.
Patterson, John, Coristine Bldg.
Peterson, A., 10 Victoria St.
Peterson, Geo. E., Coristine Bldg.
Phelan, M. F., Unity Bldg.
Plow, Geo. S., 232 McGill.
Pollack Bros., Read Bldg.
Pope, P. E. & Co., Jacobs Bldg.
Porter, S. E., 10 Victoria.
Reid, W. A., 232 McGill.
Rhodes, W. E., 33 St. Nicholas.
Richter, Otto, 301 St. James.
Ritchie, J. E., 591 St. Catherine W., King's Hall.
Rogers, W. A., 301 St. James.
Ross, Geo. D. & Co., 142 Craig W.
Scott, E. J. & Co., 59 St. Peter.
Scott, Robt. B., 42 St. Sacrament.
Scott & West, 518 St. Catherine W.
Seward Bros., St. Nicholas Bldg.
Shaw, John H., Read Bldg.
Sherer, J. S. & Co., 204 St. James.
Shrago, J., 520 St. Lawrence.
Skelton, A. H., 137 McGill.
Thomas, H. L., 43 St. Sacrament.
Tilley, St. Clair, Coristine Bldg.
Trow, J. B. & Co., 14 Phillips Square.
Vorsteher, G. A., Read Bldg.
Walker Bros., 59 St. Peter.
Walker & Basham, 10 Victoria.
Wallace & Wallace, St. Paul & St. Nicholas.
Walsh, W. H. & Co., St. Paul & St. Nicholas.
Watson-Weldon, H. F. & Co., St. Paul & St. Nicholas.
White, Will P., Otd., 525 St. Paul.
Williams, Walter & Co., 525 St. Paul.
Wilson, Angus & Dewar, Coristine Bldg.
Woods & Howard, Coristine Bldg.
Zimmerman, Paul, 43 St. Sacrament.

Toronto, Ont.—
Allen, J. H. & B. F., 33 Melinda.
Angus, W. M. & Co., 468 King W.
Armstrong, H. I. & Co., 37 Colborne.
Baker, Richard L. & Co., 100 Wellington W.
Baker, W. H., 80 Wellington W.
Bebbe, L. G., 53 Yonge.
Begg, Wm. R., 20 Wellington W.
Bell, Duncan, Limited, 33 Melinda.
Bellinger, E., 152 Bay.
Birrell, W. E., 21 Wellington E.
Boyd, G., 33 Melinder.
Brophy, Thos. & Sons, 167 Yonge.
Bryant, C. A., 24 Wellington W.
Burns, Ed. Co., Ltd., 117 Wellington W.
Caldecott Bros., 79 Spadina Ave.
Chandler, The Co., 33 Melinda.
Clark, C. & A. G., 35 Wellington W.
Clark, Jas & Co., 64 Wellington W.
Cosbie, R. H., 30 Wellington W.
Cowie, H. V., 77 York.
Cowie, R. W., 77 York.
Cull, Gordon, Ltd., 28 Wellington. W.
Davis, R. R., Manchester Bldg.
DeGruchy, J. R., 152 Bay.
DeSauzea, F. D., 64 Wellington W.
Dingman & Co., 100 Wellington W.
Douglas, Chas. A., 17 Melinda.
Duncan, W. J., 72 York.
Dunning, C. W.,, 64 Wellington W.
Edwards, E. S., McKinnon Bldg.
Flaws, R. & Son, 33 Melinda.
Foley, J. J., 33 Melinda.
Gerhardt Mfrs. Agency, 64 Wellington W.
Gilchrist Bros., 28 Wellington W.
Gilchrist Bros., 28 Wellington W.
Golder, M. J., 28 Wellington W.
Gordon, John & Sons, 80 Bay.
Grassett, A. W., 17 Melinda, McKinnon Bldg.
Greene, A. R. & Co., 64 Wellington W.
Hallows, Edgar, 122 Wellington W.
Harper, Geo. D., 64 Wellington W.
Henderson, J. B., & Co., 439 King W.
Henderson & Smyth, Ltd., 66 Wellington W.
Hird, S., 24 Wellington W.
Holyroyd, H., 64 Wellington W.
Jones, Geo. A., 64 Wellington W.
Kidd, H. A., 167 Yonge.
King, Fred. & Son, 32 Front W.
Koenig, R., 64 Wellington W.
Lalor, John M., 30 Front W.
Lee, Geo., 79 Spadian.
Lewis, M., Yonge Arcade.
Lindsay, Chas. M., 88 Wellingont W.
Lorimer, B. D., 58 Front W.
MacPherson & Wright, 64 Wellington W.

*For more detailed information see **Fraser's** Directories, 2017 Hutchison St., Montreal.

McClung, J. E., 33 Melinda.
McGovern & Co., 16 King W.
Mercer, A., 52 Bay.
Meredith, Wm. C., 23 Scott.
Miller, N. R., 33 Melinda.
Morrice, D. Co., Ltd., 64 Wellington W.
Morson, Boswell, & Co., 64 Wellington W.
Mouterde, Chas. & Co., 80 Wellington W.
Newbold, Still & Co., 77 York.
Nixon, W. E., 64 Wellington W.
Norman, Thos., 64 Wellington W.
Oliver & Barker, 28 Wellington W.
Oppenheimer, S., 28 Wellington W.
Pape, G., 64 Wellington W.
Parker, H., 32 Front W.
Parkes, Arhtur H., 77 York.
Parsons, Robt. C., 64 Wellington W.
Phillips, Chas., 77 York.
Ridout, George & Co., 77 York.
Robertson, J. M. & Co., 68 Wellington W.
Roessel, Louis & Co., 64 Wellington W.
Rose, Fred, 19 Melinda.
Rosenblott, A., 28 Wellington W.
Ross, Geo. D. & Co., 72 Bay.
Russell, A., 1281 College.
Rutherford, J., 23 Scott.
Scott, R. F., Manchester Bldg.
Silvers, N. B., 79 Spadina.
Smallpiece, V. Norman, 76 Bay.
Smart Agencies, 88 Wellington W.
Smith, D. P., 64 Wellington W.
Sproul, Smith & Co., 33 Melinda.
Stanbury, Jas. & Co., 33 Colborne.
Stewart, Wm. B., 64 Wellington W.
Stowe, J. H., 78 Bay.
Strachan, Jas., 64 Wellington W.
Strong, A. H., 468 King W.
Stuart, Campbell, 1325 Traders' Bank Building.
Sutherland, A. W., 17 Melinda.
Switzer, Robt., H., 35 Wellington W.
Tarry, E., 32 Front W.
Taylor, Robt., 64 Wellington W.
Thompson, S., 64 Wellington W.
Thompson, S., 64 Wellington W.
Trimble, J. B., 32 Front W.
Turner, F. A., 52 Bay.
Wallace & Wallace, 64 Wellington W.
Walsh, E. H. & Co., 52 Bay.
White, Will P., Ltd., 65 Simcoe.
Whitehead, Wm., 70 Lombard.
Wiendieck, Wm. C., 17 Melinda.
Williams, Walter & Co., 20 Wellington W.
Wilson, Angus & Dewar, 77 York.
Wilson & Paterson, 64 Wellington W.
Worthington, W. E., 64 Wellington W.

Vancouver, B.C.—

Fraser, Mather & Co.,

Winnipeg, Man.—

Fraser, Mather Co.,
Montgomery, A. E.
Western Mfrs. Agency, 206 Royal Com. Bldg.

WHOLESALE DRY GOODS HOUSES*

Brantford, Ont.—
Kilchen Overall & Shirt Co., Ltd.
Calgary, Alta.—
Brock, W. R. Co., Ltd.
Edmonton, Alta.—
Morris Piercy & Co., Ltd.
Revillon Wholesale, Ltd.
Halifax, N.S.—
Britannia Mfg. Co.
Murphy, J. & M., Ltd.
Kingston, Ont.—
MacNee & Minnes.
London, Ont.—
Brickenden & McCrimmon.
Nelson, Geo. & Co.
McMahen, Granger & Co.
Robinson, Little & Co.
Struthers, R. C. & Co.
Montreal, Que.—
Abdlenour & Bouziane Importing Co., 224 Notre Dame E
Aboud & Boosamra, 321 Notre Dame E.
Arthur & Co., 232 McGill.
Greatorex & Co., Ltd., 43 St. Sacrament.
Black, N., 565 St. Lawrence.
British American Import, 516 St. Lawrence.
Brock, The W. R. Co., Ltd., 230 Notre Dame W.
Canadian Trading Co., 282 St. Catherine W.
Caverhill, John B. & Co., 91 St. Peter.
Debenhams (Canada) Ltd., 13 St. Helen.
Duchesneau, Duchesneau Co., Ltd., 51 St. Paul St.
Fitxgibbon, Ltd., 31 Victoria Square.
Gault, The, Bros. Co., Ltd., 240 Craig St. W.
Gilmour, J. D. Co., 12 St. Paul St. E.
Goldfine & Chananie, 5 Ontario W.
Greenshields, Ltd., 17 Victoria Square.
Hodgson, Sumner & Co., Ltd., 347 St. Paul.
Lapin Bros., 234A St. Lawrence.
Malouf, Jarjour, Motter & Co., 187 Notre Dame E.
Mann, Byars & Co., 230 McGill.
Martin P. P. & Co., 336 St. Paul.
M. Matte & Co., 183 Notre Dame E.
May, Thomas & Co., Ltd., 14 St. Helen.
McIntyre, Son & Co., Ltd., 13 Victoria Square.
Myerson Bros., 912 St. Lawrence.
Morley, J. & R., Ltd., Lindsay Bldg.
North West Jobbing Co., 701A St. Lawrence.
Orkin, J. M. & Co., Ltd., 214 Notre Dame W.
Phillips, J. &. N. Co., 518 St. Catherine W.
Parsons & Co., 301 St. James.
Poyanier, A., 520 St. Lawrence.
Racine, Alphonse, Ltd., 340 St. Paul.
Saad & Assaly Bros., 225 Notre Dame E.
Saba & Barakett, 317 Notre Dame E.
Salhani, M., 197A Notre Dame E.
Shamy Bros., Ltd., 211 Notre Dame E.
Simon & Miller, 867 St. Lawrence.
Stewart & McDonald, 332 St. Paul.
Tabah Cousins, 209 Notre Dame E.
Wigdor, S. & Son, 520 St. Lawrence.
Ottawa, Ont.—
Garland, Son & Co., Joh M.

Quebec, Que.—
Amyot, Jos. & Co., 45 Dalhousie.
Belanger, Germain, 17 St. Peter.
Garneau, Ltd., 71 Dalhousie.
Gauvreau, Beaudry & Co., 48 St. Peter.
McCall, Shehyn & Son, Ltd., 52 St. Peter.
McLimont, Wm. & Son, 71 St. Peter.
Thibadeau Bros., & Co., 41 Dalhousie.

St. John, N.B.—
Brock & Patterson, Ltd.
Manchester, Robertson, Allison, Ltd.
Vassie & Co., Ltd.

Three Rivers, Que.—
Drolet, Lassonde & Co.

Toronto, Ont.—
Arent, J., 151 Queen W.
Aziz, J. & A., 146 Wellington W.
Bachrack Co., Ltd., 56 Bay.
Blitzstein, P., 235 Queen W.
Bradshaw, A. & Son, Ltd., 25 Wellington W.
Brock, W. R. & Co., Ltd., Bay & Wellington.
Campbell, J. W. & Co., 64 Wellington W.
Caplan & Co., 229 Queen W.
Chamandy, N. & G., 50 York.
Cooke, Sons & Co., Ltd., 33 Melinda.
Darling, Robt. & Co., 92 Adelaide W.
Denton, Mitchell & Duncan, 83 Wellington W.
Debenhams (Canada) Ltd., 68 Wellington W.
Fisher, W. D., 24 Wellington W.
Fowke, Singer & Co., Ltd., 7 Wellington W.
Gordon, MacKay & Co., Ltd., Bay & Front.
Gregg, G. R. & Co., Ltd., 48 York.
MacDonald, John & Co., Ltd., 21 Wellington E.
McKinnon, S. F. & Co., Ltd., 110 Wellington W.
Nisbet & Auld, Ltd., 34 Wellington W.
Robinson & Dale, 9 Wellington W.
Stewart & McDonald (Export), Ltd., 64 Wellington W.
Toronto Clearing House, 20 Wellington. W.
Toronto Jobbing House, 127 Terauley.
Strachan, Oswell & Co., Ltd., 32 Front W.

Truro, N.S.—
C. E. Bentley & Co.

Vancouver, B.C.—
Gault Bros., Ltd.
Johnston Bros., Ltd.
Milne & Middleton, 345 Water.
Thomson & Son, Ltd., Jas., 345 Water.
Victoria, B.C.—
Turner, Beeton & Co., Ltd.
Winnipeg, Man.—
Barish, D. & Co., 182 Henry.
Gaults, Ltd., Bannatyne & Arthur Sts.
Finnie & Murray, McDermot & Adelaide Sts.
Latiff, T., 38 Sutherland.
Robinson, Little & Co., 54 Arthur.
Stobarts, Ltd., McDermott & King.
Wilence, B., 269 Alfred.
Wiseman & Yudluvitz, 465½ King.
Whitla, R. J. & Co., Ltd., 264 McDermott.

*For more detailed information see **Fraser's** Directories, 2017 Hutchison St., Montreal.

WHOLESALE MEN'S WEAR *

Calgary, Alta.—
Brock, The W. R. Co., Ltd.
Edmonton, Alta.—
Great Western Mfg. Co.
Piercy, Morris & Co., Ltd.
Revillon Wholesale, Ltd.
Winner, De & Co.
Hamilton, Ont.—
Van Allen Co., Ltd.
Halifax, N.S.—
Murphy, J. &. M., Ltd.
Kingston, Ont.—
MacNee & Minnes.
London, Ont.—
Brickenden, McCrimmon & Co.
McMahen, Granger & Co.
Nelson, Geo. & Co.
Robinson, Little & Co.
Struthers, R. C. & Co.
Montreal, Que.—
Arthur & Co., 232 McGill.
Black, N., 565 St. Lawrence.
Bradbury, Greatorex, 43 St. Sacrament.
Brock, The W. R. Co. Ltd., 230 Notre Dame W.
Cohen & Sons, J., Ltd., 136a Craig W.
Desparois, Garneau & Co., 420 St. Paul.
Fitzgibbon, Ltd., 33 Victoria Sq.
Gault, The Bros. Co., Ltd., 240 Craig W.
Greenshields, Ltd., 17 Victoria Sq.
Hodgson, Sumner Co., Ltd., 87 St. Paul W.
Jaegers, Dr. S. W. S. Co., Ltd., 243 Bleury.
Lapin Bros., 234a St. Lawrence.
Malouf, Jarjour, Matte & Co., 183 Notre Dame E.
Mann, Byars & Co., 230 McGill.
Martin, P. P. & Co., 50 St. Paul W.
Matthews, Towers & Co., Ltd., 10 St. Helen.
McIntyre, Son & Co., Ltd., 13 Victoria Sq.
Morley, I. & R., Lindsay Bldg.
Ouimet, Alphonse, J., Ltd., 98 St. Paul W.
Racine, Alphonse, Ltd., 60 St. Paul W.
Regent, The Shirt Co., Ltd., 149 Notre Dame W.
Simon & Miller, 865 St. Lawrence.
Stewart & McDonald Export Co., 34 St. Paul W.
Tabah, Cousins, 209 Notre Dame E.
Tooke Bros., Ltd., 302 De Courcelles.
Tooke, R. J., Ltd., 472 Guy St.
Ottawa, Ont.—
Garland, John M. Son & Co.,
Grant, Holden, Graham, Ltd.
MacKenzie, Ltd.
Quebec, P.Q.—
Amyot, Jos.
Garneau, Ltd.
Gavreau, Beaudry & Co.
McCall, Shehyn & Son, Ltd.
McLimont, Wm. & Son.
Thibadeau, Bros. & Co.
Rock Island, P.Q.—
Globe Suspender Co.
St. John, N.B.—
Brock & Paterson, Ltd.
Manchester, Robertson, Allison, Ltd.
Vassie & Co., Ltd.
Three Rivers, P.Q.—
Drolet, Lassonde & Co.
Toronto, Ont.—
Arthur & Co., 64 Wellington W.
Aziz, J. & A., 146 Wellington W.
Bachrack, The, Co., Ltd., 56 Bay.
Blitzstein, P., 235 Queen W.
Brock, The W. R. Co., Ltd., 68 Bay.
Bradshaw, A. & Son, Ltd., 25 Wellington W.
Campbell, J. W. & Co., 64 Wellington W.
Caplan & Co., 229 Queen W.
Caulfeild, Burns & Gibson, Ltd., 62 Fronto W.
Chamandy, N. & G., 50 York.
Cooke, Sons & Co., Ltd., 33 Melinda.
Denton, Mithcell & Duncan, 83 Wellington W.
Fowke, Singer Co., Ltd., 7 Wellington W.
Gordon, Mackay & Co., Ltd., Bay and Front.
MacDonald, John, & Co., Ltd., 21 Wellington E.
Monypenny, Bros. & Co., 84 Wellington W.
Munro & Donald, Ltd., 64 Wellington W.
Robinson & Dale, 9 Wellington W.
Satanov, Louis & Co., 20 Wellington W.
Welch, Margetson & Co., Ltd., 63 Bay.
Wreyford & Co., 85 King W.
Truro, N.S.—
Bentley, C. E. & Co.
Vancouver, B.C.—
Canadian, Scharlin Bros., 21 Pender W.
Gault Bros., Ltd.,
Johnston, Bros., Ltd.
Mackay, Smith, Blair & Co., Ltd.
McMaster, W. J. & Sons, Ltd.
Thomson, Jas. & Sons, Ltd.
Victoria, B.C.—
Turner, Beeton & Co., Ltd.,
Winnipeg, Man.—
Adelman & Droxerman.
Barish, D. & Co.
Briggs, E. H. Co., Ltd., 833 Henry St.
Druckman, B.
Finnie & Murray.
Gaults, Ltd.
Manitoba Importing Co., 182 Logan.
Nemervosky & Co., 183 Henry Ave.
Northwestern Importing & Jobbing Co., 174 Logan.
Portigal, Isaac.
Portnuff Bros., 264 Jarvis Ave.
Robinson, Little & Co.
Stobarts, Ltd.
Udow, M., 660 Main St.
Whitla, R. J. & Co., Ltd.

MEN'S WEAR AND FURNISHING.

Manufacturers' Agents *

Montreal, Que.—
Barette, E. O.& Co., 301 St. James.
Carson, J., 149 Notre Dame W.
Coull, A. J., 243 Bleury.
Degruchy, P. & Son, 207 St. James.
Dwane, J. R., 1446 St. Urbain.
Foster, E., 10 Coristine Bldg.
Gauthier, J. A., 204 St. James.
Gilpin, A. L., 243 Bleury.
Harrower & Johnston, 301 St. James.
Hodges, Gordon K., 232 McGill.
Hurley, Hugh J., 301 St. James.
Kennedy, W. A., 10 Victoria.
King, W. P. & Son, 20 St. Nicholas.
Lemaistre, P. M., 10 Victoria.
McFayden, Valiquet & Shea, 59 St. Peter.
McMartin, E. W., Read Bldg.
Morgan, D. F., 149 Notre Dame W.
Morris, A. A., 46 St. Alexander.
Poirier, A. S., 42 St. Vincent.
Sage, J. A., 1975 Hutchison.
Skelton, A. H., 137 McGill.
Trow, J. B., 14 Phillips Sq.
Toronto, Ont.—
Baker, Richard L. & Co., 100 Wellington W.
Boulton, H. E., 20 Wellington W.
Bryant, C. H., 24 Wellington W.
Burns, Ed. Co., 117 Wellington W.
Kallmeyer, E. M., 94 South Drive.
Partridge, W. H., 17 Melinda St.
Roden, Jas. A., Yonge Arcade.
Rosenthal, H., 11 Richmond W.
Smart, H. L., 17 Melinda St.
Smith, D. P., 64 Wellington W.
Sutherland, D., 17 Melinda St.
Tarry, E., 32 Front W.
Whepley & Searle, Yonge Arcade.
Winnipeg, Man.—
Groff, S. & Son, 290 McDermot.
Hanley & Mackay, 139 Albert.
McRae & Walker, 63 Albert.

*For more detailed information see Fraser's Directories, 2017 Hutchison St., Montreal.

WHOLESALE WOOLENS, LININGS, TRIMMINGS, &c. *

Barbeau, Latour & Co., 301 St. James, Montreal.
Barlow, Bruce & Co., 301 St. James, Montreal.
Barlow, Mongenais & Co., 52 Victoria Sq., Montreal.
Bohan Bro'., 39 Adelaide W., Toronto.
Boulter, McMillen, 20 Wellington W., Toronto.
Bradshaw, A. & Sons, 25 Wellington W., Toronto.
British American Import Co., 516 St. Lawrence, Mont'l.
Brock, The W. R. Co., Ltd., Bay & Wellington, Toronto; also 230 Notre Dame W., Montreal.
Cole & Son, 91 Albert St., Winnipeg.
Cossey, S. R. Co., Halifax, N.S.
Darling, Robt. & Co., 92 Adelaide W., Toronto.
Drolet, Lassonde & Co., Three Rivers, Que.
Finley, Smith & Co., 26 St. Helen, Montreal.
Fisher, John, Son & Co., 247 Notre Dame W., Montreal.
Fisher, Mark, Sons & Co., 28 Victoria Sq., Montreal.
Fitzgibbon, Ltd., 31 Victoria Sq., Montreal.
Fromstein Bros., 173 St. Patrick, Toronto.
Garland, John M., Son & Co., Ottawa, Ont.
Garneau, Ltd., Quebec, Que.
Gault, The, Bros. Co., Ltd., 240 Craig W., Montreal.
Gavreau, Beaudry, Quebec, Que.
Gelber Bros., 217 Richmond W., Toronto, Ont.
Ginsberg Bros., 310 Notre Dame W., Montreal.
Glickman & Glickman, 124 St. Lawrence, Montreal.
Goldstein, D., 233 Queen W., Toronto.
Gordon, Mackay & Co., Ltd., Bay & Front, Toronto.
Greenshields, Ltd., 17 Victoria, Sq., Montreal.
Hayes & Lailey, Bay & Wellington, Toronto.
Heillig, Joseph, & Co., 206 McGill, Montreal.
Hodgson, Sumner & Co., Ltd., 87 St. Paul W., Montreal.
Home, Chas. M., Ltd., 66 King St. W., Winnipeg.
Hurley, Hugh J., 301 St. James St., Montreal.
Hutchison, R. B. Co., Ltd., 64 Wellington W., Toronto.
Johnston Bros., Ltd., Vancouver.
Klotz Co., Ltd., Sommer Bldg., Montreal
Lapin Bros., 234a St. Lawrence, Montreal.
Letourneau, O., & Co., 59 St. Peter, Montreal.
Levy, H. & Son, 198 McGill, Montreal; also Toronto.
Macdonald, John & Co., Ltd., 21 Wellington E., Toronto.
Macnee & Minnes, Kingston, Ont.
Manchester, Robertson, Allison, Ltd., St. John, N.B.
Martin, M., 43 Wellington E., Toronto.
Martin, P. P. & Co., Ltd., 40 St. Paul W., Montreal.
McCall, Shehyn & Son, Ltd., Quebec, P.Q.
McDougall, A. & Co., 196 McGill, Montreal.
McLimont, W. & Son, Quebec, P.Q.
Mickleborough, Muldrew & Co., 79 Wellington W., Tor'o
Moquin, L. & H., 42 St. Sacrament, Montreal.
Monypenny Bros. & Co., 84 Wellington W., Toronto.
Morris, A. A., 46 St. Alexander, Montreal.
Morris, M. L. & Co., 46 St. Alexander, Montreal.
Murphy, J. & M., Ltd., Halifax, N.S.
Nisbet & Auld, 34 Wellington W., Toronto.
Ogilvie, Thos. & Son, Bay & Wellington, Toronto.
Pitt, S., 448 Richmond, Montreal.
Racine, Alphonse, Ltd., 60 St. Paul W., Montreal.
Revillon Whole, Ltd., Edmonton, Alta.
Rife, S. A., & Co., Walkerton, Ont.
Robinson & Dale, 9 Wellington W., Toronto.
Robinson, Little & Co., London, Ont.; also Winnipeg.
Roch, J. A. & Co., 310 St. Paul W., Montreal.
Roessel, Louis & Co., 64 Wellington W., Toronto; also Sommer Bldg., Montreal.
Rosenthal, J. & Son, 149 Notre Dame W., Montreal.
Sadler, W. H. B., St. John, N.B.
Stobarts, Ltd., Winnipeg, Man.
Tailoring Supply Co., 70 Terauley, Toronto.
Thomson, Jas.& Sons, Ltd., Vancouver, B.C.
Thibadeau, Freres & Co., Quebec., P.Q.
Tollington & Co., 332 Bannatyne, Winnipeg.
Tranchemontagne, Limited, 59 St. Sulpice, Montreal.
Turner, Beeton & Co., Ltd., Vancouver, B.C.
Vassie & Co., Ltd., St. John, N.B.
Watchorn, T. H., Merrickville, Ont.
Watt, Geo., S., 74 York, Toronto.
Wener, Albert M. & Co., 170 McGill, Montreal.
White, Will. P., Ltd., 67 Simcoe, Toronto; also Montreal.
Whitla, R. J. & Co., Ltd., Winnipeg, Man.
Yorkshire Importing Co., 324 St. Lawrence, Montreal.

WHOLESALE HATS AND CAPS *

Brockville, Ont.—
Wolthausen Hat Corp., Ltd.
Edmonton, Alta.—
Lesser Cap Mfg. Co.
Galt, Ont.—
Crown Hat Co., Ltd.
Hamilton, Ont.—
Glassco, G. F. & Co., Ltd.
Kingston, Ont.—
Mills, George & Co.,
London, Ont.—
Fraser Cap Co.
Greene, Swift, Ltd.
Marshall, John & Co.
McMillan, Calder & Co.
Sabine, H. A. & Co.
Shuttleworth, J. R. & Sons, Ltd.
Spittal Bros. & Co.
Wright, Sons & Co.
Marieville, Que.—
Guillet, E. & Sons, Co., Ltd.
Moncton, N.B.—
Maritime Cap Co.
Montreal, Que.—
Backler, L., 685 St. Paul W.
Boston Cap Co., 219 St. Lawrence.
Boulter-Waugh, Ltd., 417 St. Paul W.
Buckley-Drouin Co., Ltd., 160 McGill St.
City Cap Co., 192 St. Lawrence.
Clement & Co., 232 Lemoine.
Cohen, J. & Son, Ltd., 136a Craig W.
Coristine, Jas. & Co. Coristine Bldg.
Cunningham, T. E., 489 St. Paul W.
Davis Cap Co., 1302 Clarke St.
Desparois, Garneau & Co., 420 St. Paul W.
Dominion Straw Goods Mfg. Co., 15 St. Peter St.
Globe Hat Works, 10 Turgeon St.
Gnaedinger, L., Son & Co., 92 St. Peter.
Goldner, A. (*Reg'd.*) 222 St. Lawrence.
Guillet, E. & Sons Co., Ltd., Coristine Bldg.
Hallett, Weinberg, Bedard, 124 St. Paul W.
Jaeger, Dr. S. W. S. Co., Ltd., 243 Bleury.
King Hat Co., 489 St. Paul St. W.
Kumfort Cap Mfg. Co., 10 St. Peter St.
London Hat & Cap Mfg. Co., 161 Fortification Lane.
McNeil Beaugrand & Co., 204 St. James.
Miller Bros. Cap & Cloak Mfg. Co., 203 Notre Dame E.
Montreal Cap Co., 2 Cote St.
Peck, John W. & Co., Ltd., 2275 St. Lawrence.
Progress Brand Cap Co., 510a St. Lawrence.
Provencher, Geo., 166b St. Elizabeth.
Real American Cap Co., 781 St. Lawrence.
Redmond, The Co., Ltd., 185 Inspector.
Regent Cap Mfg. Co., 149 Notre Dame W.
Royal Brand Cap Co., 1520 Cadieux.
Sterling Cap Co., 489 St. Paul W.
Wolthausen Hat Corp., Ltd., 149 Notre Dame W.
Quebec, Que.—
Laliberte, J. B.
St. Johns, Que.—
Excelsior Straw Works.
Toronto, Ont.—
Allan, A. A. & Co., Ltd., 51 Bay.
Anderson MacBeth, Ltd., 284 King W.
Ansley-Dineen Hat & Fur Co., 52 Wellington W.
British Fur Co., 406 Bathurst.
Bruce Mfg. Co., 252 Spadina Ave.
Canadian Raincoat Mfg. Co., 49 Bathurst.
Cooper Cap Co., The, 260 Spadina Ave.
Crean, Robt. & Co., Ltd., 18 Balmuto.
Cunningham, V. L. & Co., 712 Yonge St.
Fairbairn, R. D. Co., Ltd., 105 Simcoe.
Fried, Grills & Co., 102 Front W.
Knox Mfg. Co., 25 Wellington W.
London Hat Co., 103 Adelaide W.
McRae Mfg. Co., Ltd., 445 King W.
Ontario Cap Co., Rear 5 McCaul.
Palter Bros., 122 Wellington W.
Punchard, Chas. C. & Co., Wellington & Bathurst.
Royal Cap Co., 243 College.
Samuels, J. & Sons, 79 St. Peter.
Vanderwater, Watt, Brown Co., Ltd., 42 Adelaide W.
Wolthausen Hat Corp., Ltd., 28 Wellington W.
Wreyford & Co., 85 King W.
Truro, N.S.—
Canada Cap Co., Ltd.
Eastern Hat & Cap Mfg. Co., Ltd.
Winnipeg, Man.—
Echlin Mfg. Co., Farmers' Advocate Bldg.
Northwestern Cap Co., 204 Bon Accord Bldg.
Peck, John W. & Co., Ltd., 33 Princess.
Union Hat Works, 283 Portage Ave.
Western Hat Mfg. Co., Farmers' Advocate Bldg.

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WHOLESALE MILLINERY HOUSES *

Brock & Patterson, Ltd., King Street, St. John, N.B.
Buchanan, N. D. & Co., Toronto.
Caverhill, John B. & Co., 91 St. Peter, Montreal.
Cockburn & Bundy, Ltd., 71-77 York St., Toronto.
Continential Mfrs. Syndicate, 77 York, Toronto.
Debenhams (Canada) Ltd., 13 St. Helen, Montreal.
DeBoeck, E. M. & Co., 85 St. Peter, Montreal.
Dickison, Nicholson & Co., London, Ont.
Farrell, Belisle & Co., 22 St. Helen, Montreal.
Goulding, G. & Sons, 53 Wellington W., Toronto; also 230 McGill St., Montreal.
Green, John C. Co., Ltd., 70 Wellington W., Toronto.
Holiday & Finnie, 232 McGill, Montreal.
Ivey, John D. Co., Ltd., 74 Wellington W., Toronto; also 240 Notre Dame St. W., Montreal.
Manchester, Robertson, Allison, Ltd., St. John, N.B.
McCall, D. Co., Ltd., 94 Wellington W., Toronto, also 232 McGill St., Montreal.
McKinnon, S. F. & Co., Ltd., 110 Wellington W., Toronto; also at 87 St. Peter, Montreal.
Orkin, J. M. Co., Ltd., 214 Notre Dame W., Montreal.
Skinner, Frank, St. John, N.B.
Smith, Runciman Co., Ltd., 100 Wellington W.,Toronto
Thomson, Jas. & Sons, Ltd., 353 Water Vancouver, B.C.
Vyse, Sons Co., Ltd., 18 St. Helen, Montreal.

WHOLESALE BOOT & SHOE and other Footwear*

Amherst, N.S.—
Amherst Boot & Shoe Co., Ltd.
Belleville, Ont.—
Belleville Shoe Co.
Brandon, Man.—
Dowling & Creelman.
Brantford, Ont.—
Agnew, John, Ltd.
Brockville, Ont.—
Johnston, J. A. Co.
Calgary, Alta.—
McFarland Shoe Co.
McKillop, A. Co., Ltd.
Charlottetown, P.E.I.—
Goff & Co.
Edmonton, Alta.—
Stockand, Geo.
Halifax, N.S.—
Taylor, Robt. Co., Ltd.
Hamilton, Ont.—
Griffith, R. B. & Co.
Lennox, John & Co.
McPherson, John Co., Ltd.
Townsend, J.S.
Kingston, Ont.—
Midland Shoe Co.
London, Ont.—
Coates, Burns & Wanless.
Karn Shoe Co.
London Shoe Co., Ltd.
Sterling Bros., Ltd.
Webster & Graham.
Moncton, N.B.—
Higgins, L. & Co.
Montreal, Que.—
Canada Shoe Co., 229 Notre Dame E.
Cook, Wm., Shoe Co., 217 Notre Dame E.
Chouinard, J. I., 330 Notre Dame E.
Hymmen, O. H., 17 Laval Ave.
Labelle, J. R., 229 Lemoine.
Lambert, Alfred, 14 Notre Dame W.
Lion Brand Shoe, 15 Gosford.
Metropolitan Shoe Co., 93 St. Paul E.
Packard, L. H. & Co., Ltd., 9 St. Antoine.
Percival Bros., 61 St. Sulpice.
Ritz Shoe Co., 256 Lemoine.
Robinson, James, 184 McGill.
Saucier, A. E. Shoe Co., 217 Notre Dame E.
Scheuer, Normandin & Co., 8 St. Helen St.
Thompson Shoe Co., Ltd., 36 St. Genevieve.
Moose Jaw, Sask.—
Kennedy, Bros.
Ottawa, Ont.—
Ault, A. W., 48 Queen St.
Quebec, Que.—
Beaubien, Louis, 124 St. Dominique.
Begin, J. H. (*Reg'd.*) 50 Crown.
Brown, Rochette, Ltd., 580 St. Valier.
Duchaine Shoe Co., 2 St. Joseph.
Paquet Co., Ltd., St. Joseph.
Larochelle, J. H. & Fils, Ltd., 533 St. Valier.
Maranda, F., 21 Notre Dame.
Regina, Sask.—
Amherst Central Shoe Co., Ltd.
St. Hyacinthe, Que.—
Eastern Townships Shoe Co.,
St. John, N.B.—
Humphrey, J. M. Co.
Waterbury & Rising, Ltd., 66 Prince William St.
Saskatoon, Sask.—
Harley, Henry, Ltd.
Sydney, N.S.—
Humphrey, J. M. Co.
Toronto, Ont.—
Blachford, Davies & Co., Ltd., 60 Front W.
Cronk, S. C. & Co., 60 Front W.
Hamilton, W. B. Shoe Co., Ltd., 15 Front E.
Hardie, Redmond Co., Ltd., 189 Church.
Hawthorne, D. D. Co., 27 Wellington W.
McLaren & Dallas, 30 Front W.
Weston, F. J. & Sons, 53 Wellington W.
White Shoe Co., 48 York.
Vancouver, B.C.—
Damer, Lumsden & Co., 1100 Mainland.
Leckie, J. & Co., Ltd., 220 Cambie.
Stevenson Bros., 109 Powell.
Winnipeg, Man.—
Congdon, Marsh, Ltd., 68 Princess.
Finch, D. E., 404 Ashdown Block.
Kilgour, Rimer Co., Ltd., 87 Princess.
Middleton, H. G. Co., Ltd., 154 Princess.
Ryan, Thos & Co., Ltd., 44 Princess.

WHOLESALE LEATHER

Beal Bros., Ltd., 52 Wellington E., Toronto, Ont.
Dowker, McIntosh & Co., 31 St. Peter, Montreal, Que.
Galarneau, M.C. & Co., Alexander & Vitre, Montreal.
Galibert, Paul, Wellington & King, Montreal, Que.
Jacobi, Philip, 5 Wellington E., Toronto, Ont.
Lewis, Ed. R., 21 Scott, Toronto, Ont.
Mallette & Co., 225 Lemoine, Montreal, Que.
McEntyre, John, Ltd., 46 St. Alexander, Montreal, Que.
McIndoe, F. C. A., St. Nicholas Bldg., Montreal, Que.
New Castle Leather Co., 335 Craig W., Montreal.
Parsons, C. & Son, 79 Front E., Toronto, Ont.
Roy, Paul, 152 Notre Dame W., Montreal, Que.
Sauve & Perras, 242 Lemoine, Montreal, Que.
Scott, J. A., 566 St. Valier, Quebec.
Shee, E. A., 611 St. Valier, Quebec.
Whitley, Fred. & Co., 218 Lemoine, Montreal, Que.
Ackerman, B. F. & Sons, Peterboro, Ont.
Adams Bros. Harness Mfg. Co., 35 King William Hamilton, Ont.
Alberta Saddlery Co., Lethbridge, Alta.
Alexander, A. E., 35 King William, Hamilton.
Arscott, S. & Co., St. John, N.B.
Auger, T., 98 St. Paul E., Montreal, Que.
Beal, R. M., Leather Co., Lindsay, Ont.
Borbridge, S. & H., Ottawa, Ont., also Brandon, Man.
B. C. Leather & Findings Co., 169 Pender W., Vancouver.

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WHOLESALE GROCERIES

Belleville, Ont.—
J. E. Walmsley Co., Ltd.
Berlin, Ont.—
Randall & Roos.
Brantford, Ont.—
George Foster & Sons., Ltd.
Geo. Watt & Sons.
Brockville, Ont.—
Gilmour & Co.
Calgary, Alta.—
Campbell, Wilson & Horne, Limited.
Georgeson & Co., Ltd.
L. T. Mewburn & Co., Ltd.
Louis Petrie, Ltd.
Camrose, Alta.—
G. F. & J. Galt, Ltd.
Chicoutimi, Que.—
Cote, Boivin & Co.
Collingwood, Ont.—
T. Long & Bro., Ltd.
C. Stephens & Co.
Telfer Bros., Ltd.
Cranbrook, B.C.—
Cranbrook Jobbers, Ltd.
Drummondville, Que.—
J. O. Montplaisir.
Edmonton, Alta.—
Campbell, Wilson & Horne, Ltd.
Edmonton Produce Co.
Revillon Bros, Ltd.
Fernie, B.C.—
The Western Canada Wholesale Co., Ltd.
Fredericton, N.B.—
James Hodge.
A. F. Randolph & Sons.
Fort William, Ont.—
The Cameron-Heap, Co., Ltd.
Guelph, Ont.—
The Simpson Co.
Hamilton, Ont.—
Balfour, Smye & Co.
Geo. E. Bristol & Co.
W. H. Gillard & Co.
Macpherson, Glassco & Co.
James Turner & Co., Ltd.
Hull, Que.—
P. D'Aoust & Co.
Joliette, Que.—
Chevalier Pouliot & Co.
Joseph Dufresne.
Magnan & Chevalier.
Kenora, Ont.—
The Cameron-Heap Co., Ltd.
Rat Portage Cold Storage and Produce Co., Ltd.
Kingston, Ont.—
R. J. Carson.
W. G. Craig & Co.
Fenwick, Hendry & Co.
Lethbridge, Alta.—
Campbell, Wilson & Horne, Ltd.
Levis, Que.—
A. Carrier & Fils.
Lindsay, Ont.—
W. B. Sparling & Co.
London, Ont.—
Ed. Adams & Co.
Elliott, Marr & Co.
T. B. Escott & Co.
John Garvey & Sons.
M. Masuret & Co.
A. M. Smith & Co.
Moncton, N.B.—
The A. J. Babang Co.
Reed Co., Ltd.
Montreal, Que.—
Alban, John & Co.
Birks, Corner & Co.
D. C. Brosseau & Co., Ltd.
Ciceri, Chas. Co., Ltd.
Couri, Aboosamra.
S. J. Carter & Co.
L. Chaput Fils & Co., Ltd.
Hudon, Hebert & Co., Ltd.
Hudon & Orsali.
Kouri, Aboosamra.
Lacaille, Gendreau & Co.
Lalonde & Desroches.
Laporte, Martin & Co., Ltd.
P. Adelstein.
Courrette Saurial Ltd.
Matthewson's Sons.
Pastene, P. & Co.
Patenarde-Carignan, Ltd.
Prevost, Raoul.
Sache & Leblanc.
Sagal Bros.
Zakaib Bros.
Moose Jaw, Sask.—
The Moose Grocery Co.
The Codville Co., Ltd.
North Bay, Ont.—
The Young Company, Ltd.
Ottawa, Ont.—
H. N. Bate & Sons, Ltd.
The F. J. Castle Co., Ltd.
S. J. Major, Ltd.
Provost & Allard.
J. M. Lerner & Sons,
Owen Sound, Ont.—
McLauchlan & Sons, Co., Ltd.
W. T. Harris Co., Ltd.
Pembroke, Ont.—
Hunter & Co., Ltd.
Peterborough, Ont.—
T. Kinnear & Co.
Perkins, Ince & Co.
Port Arthur, Ont.—
Riley, Ramsay Co., Ltd.
Port Frances, Ont.—
Northern Grocery Co.
Prince Rupert, B.C.—
Stewart & Mobley.
Quebec, Que.—
Drouin Freres & Rattray, Ltd.
Gagnon Garand, Ltd.
Langlois & Paradis.
Le Droit & Freres.
J. B. E. Letellier.
Quebec Preserving Co.
N. Rioux & Co.
Turcotte Freres & Co.
Nazaire Turcotte & Co.
J. B. Renaud & Co.
Whitehead & Turner.
Regina, Man.—
H. E. Smith, Ltd.
Cameron & Heap.
Sackville, N.B.—
J. L. Black & Son, Ltd.
M. Wood & Sons, Ltd.
Sault Ste. Marie, Ont.—
W. H. Gillard & Co.
Sarnia, Ont.—
T. Kenny & Co.
Saskatoon, Sask.—
Campbell, Wilson & Adams, Ltd.
The Codville Co., Ltd.
Stratford, Ont.—
The Stratford Wholesale Grocery Co., Ltd.
Sherbrooke, Que.—
Dervault, Green & Co.
St. Catherines, Ont.—
The W. H. Merriman Co., Ltd.,
John Ross.
St. Hyacinthe, Que.—
E. Lafrance.
St. John, N.B.—
G. E. Barbour Co., Ltd.
W. M. Barlow.
G. Bent & Son
H. W. Cole, Ltd.
T. Collins & Co.
Geo. S. DeForest & Sons, Ltd.
P. B. Evans.
T. Gorman.
Hall & Fairweather, Ltd.
J. Harrison & Co.
W. F. Hatheway Co., Ltd.
Jones & Schofield.

Wholesale Grocers.—(Contd.)

A. Malcolm.
Northrup & Co.
Puddington-Wetmore-Morrison, Ltd.
D. J. Purdy.
John Sealy.
St. John Mercantile Co., Ltd.

St. Stephen, N.B.—

W. C. Purves.

Sussex, N.B.—

Sussex Mercantile Co., Ltd.

Three Rivers, Que.—

J. N. Godin.

Toronto, Ont.—

The Davidson & Hay, Ltd.
Eby-Blain, Ltd.
Groceries, Ltd.
F. W. Humphrey.
T. Kinnear & Co.
Medland Bros.
Parsons, Brown & Co.
Perkins, Ince & Co.
John Sloan & Co.

Vancouver, B.C.—

Kelly, Douglas & Co., Ltd.
The Leeson, Dickie, Gross Co., Ltd.
The W. H. Malkin Co., Ltd.
W. J. McMillan & Co.

Victoria, B.C.—

Simon, Leiser & Co., Ltd.
R. P. Rithet & Co., Ltd.
Wilson Bros.

Windsor, Ont.—

Jas. F. Smythe & Co.

Winnipeg, Man.—

Campbell Bros. & Wilson Co., Ltd.
The Codville Co., Ltd.
Hudson's Bay Co.
The Jobin-Marrin Co.,, Ltd.
Richards & Brown.

WHOLESALE GLASSWARE & CHINA

Cassidy, Ltd., 333 St. Paul St., Montreal.
Gowans, Kent & Co., 16 Front St. E., Toronto.
McQuillan, J. & Co., 431 St. Paul St., Montreal.
Nerlick & Co., 146 Front St. W., Toronto.
Schmisch, Emil, 431 St. Paul St., Montreal.
Shimamura & Co., 76 Wellington W., Toronto.

SPORTING GOODS WHOLESALE HOUSES

Croft., Wm. & Sons, 78 Wellington W., Toronto.
Fancy Goods Co., of Canada, Ltd., 468 King W., Toronto
Nerlich & Co., 146 Front W., Toronto.
Spalding, A. G., Bros., 207 Yonge, Toronto.
Stedman Bros., 76 York, Toronto, and Branftord, Ont.

WHOLESALE HARDWARE

Cavanagh, E., Co., Ltd., Montreal.
Delorimier Hardware, Montreal.
Durand Hardware Co., Montreal.
Walker, Jas., Hardware Co., Montreal.
Lewis Bros., Limited, Montreal, Que.
Wood, Vallance & Co., Hamilton, Ont.
Hobbe Hardware Co., London, Ont.
D. H. Howden & Co., London, Ont.
Caverhill, Learmont & Co., Montreal, Que.
Frothingham & Workman, Ltd., Montreal, Que.
L. H. Hebert & Co., Ltd., Montreal, Que.
Letang Hardware Co., Ltd., Montreal, Que.
Baines & Peckora, Toronto.
Ontario Metal Products Co., Ltd., Toronto.
Trees, Samuel & Co., Ltd., Toronto.
Wilkinson & Rompass, Toronto.
A. Prud'homme & Fils, Ltd., Montreal, Que.
Starke & Seybold, Ltd., Montreal, Que.
Thos. Birkett & Son, Co., Ltd., Ottawa, Ont.
Chinic Hardware Co., Quebec, Que.
H. S. Howland Sons & Co., Ltd., Toronto, Ont.
Kennedy Hardware Co., Ltd., Toronto, Ont.
Rice, Lewis & Son, Ltd., Toronto, Ont.

WHOLESALE FLOUR & FEED

ALBERTA:

Crow's Nest Flour & Feed Co., Blairmore.
Erb & Anderson, Calgary.
Riverside Feed Company, Calgary.
Eccles & Gagnon, Edmonton.
Hamilton & Son, Edmonton.
R. B. Hill Co., Limited, Edmonton.
C. C. Markham Co., Limited, Edmonton.
James Benton & Son, Innisfail.
J. C. Hannahan, Lethbridge.
Kennedy & Poole, Medecine Hat.
Hepworth & Trimble, Red Deer.

BRITISH COLUMBIA:

Pioneer Feed Co., Alberni.
Daykin & Jackson, Ltd., Armstrong.
Rockwell, Theal & Davidson, Chilliwack.
Dobson & Willingham, Fernie.
Currie & Smith, Kamloops.
W. R. Glenn & Son, Kelowna.
F. J. Stannard, Nanaimo.
B. C. Grain Growers' Agency, Ltd., New Westminster.
Boult & Archibald, North Vancouver.
Parter Hay & Grain Co., Prince George.

MANITOBA:

A. E. McKenzie Co., Ltd., Brandon.
Rea & Co., Brandon.
Central Flour & Feed Co., Winnipeg.
Corbett Bros., Winnipeg.
Irvine Bros., Winnipeg.
Laing Bros., Winnipeg.
Quintal & Lynch, Ltd., Winnipeg.
William Rennie Co., Ltd. Winnipeg.
A ,Tetielbaum, Winnipe.g

Wholesale Flour & Feed.—(Cont.)

NOVA SCOTIA:

McLean Milling Co., Ltd., Amherst.
C. B. Whidden & Son, Antigonishe.
L. O. Neily & Co., Ltd., Aylesford.
Bridgetown Hay & Feed Co., Bridgetown.
Calder-Fraser Co., Ltd., Dartmouth.
J. S. Cashen & Son, Halifax.
Chisholm & Co., Halifax.
J. W. Fader & Co., Halifax.
Gibson Bros., Halifax.
Gunn & Co., Ltd., Halifax.
Hart & Nelson, Halifax.
Howard Manufacturing Co., Halifax.
J. B. Shaffner & Co., Halifax.
Atlantic Milling Co., Ltd., Pictou.
H. C. Ballem & Co., Syndey.
Ingraham Supply Co., Ltd., Sydney.
McCoubrey & Bulman, Sydney.
Geo. O. Hankinson, Weymouth.
L. P. Hughes, Belleville, Ont.
Russel D. Robertson, Cobalt, Ont.
Fort William Flour & Feed Co., Fort William, Ont.
James Dunlop Co., Ltd., Hamilton, Ont.
Dunlop, Magee Co., Ltd., Hamilton.
R. J. Carson, Kingston, Ont.
Jas. Richardson & Sons, Ltd., Kingston.
R. Hookenay & Son, London.
Silverwood's, Ltd., London.
Niagara Falls Feed & Produce Co., Niagara Falls.
R. Bunyan & Co., North Bay.
William Scott & Co., Ottawa.
Peterboro Flour & Feed Co., Peterboro.
Herbert Bray & Co., Port Arthur.
Philip Labbe & Co., Port Arthur.
Sault Flour, Feed & Seed Co., Ltd., Sault Ste. Marie.
R. H. Beatty & Co., Toronto.
Brandon & Son, Toronto.
H. Bracken & Son, Toronto.
C. W. F. Brown, Toronto.
Creedon & Blackburn, Toronto.
East Toronto Feed & Produce Co., Toronto.
E. Grainger & Co., Toronto (*Seeds*).
Hortop Milling Co., Toronto.
Moses Hunter, Toronto.
George Keith & Sons, Toronto (*Seeds*).
T. J. Overend & Sons, Toronto.
L. Shulman & Co., Toronto.
J. A. Simmers, Ltd., Toronto (*Seeds*).

PRINCE EDWARD ISLAND:

R. E. Mutch & Co., Charlottetown.
P. E. I. Hay & Produce Co., Charlottetown.
R. T. Holman, Ltd., Summerside.

QUEBEC:

Dube & Fils, Fraserville, Que.
P. D'Aoust & Co., Hull.
Clough & Co., Lennoxville.
E. A. Barry, Montreal.
F. X. Benoit & Fils, Montreal.
Canadian Grain & Feed Co., Montreal.
E. W. Caron, Montreal.
Robert Crooks Co. of Canada, Montreal (*Flour Exp.*)
Dominion Grain & Feed Co., Montreal.
E. Durocher, Montreal.
G. G. Gauchen, Montreal.
W. J. Hushion & Co., Ltd., Montreal (*W. hay*).
Jacob E. Hunsicker, Montreal (*corn, flour*).
Morris Jaslow, Montreal.
Edgar Judge, Montreal (*corn, flour*).
J. Laberge Fils & Co., Montreal (*w. hay and grain*).
Lariviere & Frere, Ltd., Montreal.
Leger Poitras & Cie, Montreal.
D. Mahaffy, Montreal.
W. H. D. Miller, Montreal.
Northern Provision & Contracting Co., Montreal.
David Plewes, Montreal.
Quintal & Lynch, Ltd., Montreal.
J. H. Rowell, Montreal.
James Scott & Co., Ltd., Montreal.
Joseph Ward & Co., Montreal.
G. E. Wright, Montreal.
H. C. Bosse & Co., Quebec.
William Carrier & Fils, Quebec.
R. F. Cream & Co., Ltd., Quebec.
D. E. Drolet, Quebec.
Edmond Labrie, Quebec.
E. M. Lennon & Co., Quebec.
J. B. Renaud & Co., Quebec.
Geo. Tanguay, Ltd., Quebec.
J. N. Laplante & Co., St. Hyacinthe.
C. G. Racicot, St. Hyacinthe.
Stewart Denault & Co., Ltd., St. Johns.
Dastous & Co., Sherbrooke.
Denault Grain & Provision Co., Ltd., Sherbrooke.
La Cie Genest, C. O., & Fils, Ltd., Sherbrooke.
Hyndman Grain Co., Sherbrooke.
J. L. Sanschagrin, Three Rivers.

SASKATCHEWAN:

Sask. Purchasing Co., Ltd., Moose Jaw.
Morse Co-operative Supply Co., Ltd., Morse.
S. A. EarlyCo., Ltd., Saskatoon
J. H. Speers, Mighton Co., Ltd., Saskatoon.

WHOLESALE DEALERS AND EXPORTERS OF APPLES

Adolph, M. I., Wallace, Ont.
Alvinston Fruit Growers' Association, Aughrim, Ont.
Anderson, J. G. Lucknow, Ont.
Beamsville Preserving Co., Ltd., King Street, Beansville, Ont.
Beman, E. C., Newcastle, Ont.
Bennett, C. A., Burlington, Ont.
Biggs Fruit & Produce Co., Ltd., Burlington, Ont.
Brant Packing Association, Burgord, Ont.
Brown, John, Brighton, Ont.
Bruner, M. G., Olinda, Ont.
Burlington Fruit Growers' Association, Burlington, Ont.
Campbell, Paul, Merton P.O., Halton Co., Ont.
Chatham Fruit Growers' Association, Ltd., Chatham, Ont.
Chilliwack Farmers' Exchange, Chilliwack, B.C.
Clark, J. W., Maugerville, N.B.
Cobourg Fruit Growers' Forwarding Association, Baltimore, Ont.
Coleman, F. Ronald, P.O. Box 68, Fredericton, N.B.
Collins & Sons, J. T., The Grange Orchards, Saltspring Island, B.C.
Co-operative Fruit Growers' of Ontario, Parliament Bldgs, Toronto, Ont.
Dawson, Fred. W., Brampton, Ont.
Dawson, H. W., 90 Colborne Street, Toronto, Ont.
Daykin & Jackson, Armstrong, B.C.
F. A. S. DeWolfe & Son, 135 Upper Water Street, Halifax, Ont.
Ernst & Son, J., Malone Bay, N.S.
Flavelle, Ltd., Lindsay, Ont.
Forest Fruit Growers' Association, Forest, Ont.
Fowler, R. C., Burlington, Ont.
Fretz, C., Vineland, Ont.
Furminger, S. D., St. Catherines, Ont.
Garner Co., T., Palermo, Ont.
Georgetown Fruit Growers' Ltd., Georgetown, Ont.
Georgian Bay Fruit Growers' Ltd., Thornbury, Ont.
Georgian Bay Milling & Power Co., Ltd., Meaford, Ont.
Gifford, A., Meaford, Ont.
Gore Fruit Growers', Norwich, Ont.
Graham, R. J., Belleville, Ont.
Grand Forks Fruit Growers' Association, Grand Forks, B. C.
Hagaman, T. C., Oakville, Ont.
Harris, J. C., Ingersoll, Ont.
Hart & Tuckwell, 163 McGill Street, Montreal, Que.
Jarvis, J. G., Black River Bridge, P. E. Co., Ont.
Johnson Bros., Forest, Ont.
Jordan Station Canning & Packing Co., Ltd., Jordan Station. Ont.
Kenney & Keddy, Hemmingford, Que.
Lambton Fruit Growers' Association, Aughrim, Ont.
Lemon Bros., Owen Sound, Ont.
Leonard, E., & Son, Cobourg, Ont.
McWilliam & Everist, 25 Church Street, Toronto, Ont.
Millman & Sons, W. H., 27 Front Street East, Toronto, Ont.
Montgomery, W., Brighton, Ont.
Mount Nemo Fruit Growers' Association, Nelson, Ont.
Nesbitt, Sam., Brighton, Ont.
Newcastle Fruit Growers' Asso ciation, Newcastle, Ont.
Newman, C. P., P.O. Box 51, Lachine Locks, Que.
Niles, W. P., Wellington, Ont.
Oakville Fruit Growers' Ltd., Oakville, Ont.
O'Brien, Wm., Windsor, N.S.
Oppenheimer, Sol., 25 Pender Street, Vancouver, B.C.
Oshawa Fruit Growers' Ltd., Oshawa, Ont.
Parham, Wm. G., Maritana, Huntingdon Co., Que.
Paterson Bros., 516 Yates Street, Victoria, B.C.
Powers, Thos. R. Grand Forks, B.C.
Pearce, Isaac W., New Sarum, Ont.
Reid, Peter, Chateauguay Basin, Que.
Richard, Wm., Newcastle, Ont.
Rittenhouse & Son, W. B., Beamsville, Ont.
Robertson, Morris & Co., 913 Dominion Trust Building, Vancouver, B.C.
Robinson & Co., O. E., Ingersoll, Ont.
St. Catharine Cold Storage & Forwarding Co., Ltd., St Catharines, Ont.
St. John Produce Co., Ltd., St. John, N.B.
St. Patrick's Institute, Grand River, Lot 14, P.E.I.
H. J. Scripture & Son, Brighton, Ont.
J. C. & M. C. Smith, Burlington, Ont.
Snelgrove, A., Brighton, Ont.
Springer, N. S., Mill Street, St. John, N.B.
Stephens, Geo. S., Bowmanville, Ont.
Stewarr Co., Wm., 224 Board of Trade, Montreal, Que.
Stirling & Pitcarin, Kelowna, B.C.
Sutherland, W. J. Grantley, Ont.
Thames Canning Factory, Thamesville, Ont.
Town & Case, Clinton, Ont.
Trappister, Reverecds Peres, Oka, Que.
Victoria Fruit Growers' Exchange, Ltd., Victoria, B.C.
Wade, R., Brighton, Ont.
Wait, John G., Wicklow, Ont.
Walker, John H., Burlington, Ont.
Wanless, Q. G., Vernon, B.C.
Watts, Chas. A., Thamesville, Ont.
Webster, J. A., Sparta, Ont.
Wesmer, J. H., Port Elgn, Ont.
Watford Fruit Growers' Association, Watford, Ont.
White & Co., Ltd., Front Street, Toronto, Ont.
Whitman, F. C., Annapolis Royal, N.S.
Williams Co., Ltd., F. E., Princess Street, St. John, N.B.
Woodworth, W. H., Berwick, N.S.

WHOLESALE DEALERS AND EXPORTERS OF BACON AND HAMS

Burns, P. & Co., Ltd., Vancouver, B.C.
Collingwood Packing Co., Ltd., Collingwood, Ont.
Dalrymple, Jas. & Sons., 594-598 St. Paul Street, Montreal.
Davies, Ltd., Mills Street, Montreal, Que.
Davies, Wm. Co., Ltd., 521 Front Street, East, Toronto, Ont.
Davies Packing Co., Ltd. (The), Harriston, Ont.
Davies & Fraser, Halifax, N.S.
Duff & Son, John, Brant Street, Hamilton, Ont.
Fearman, F. W., Co., Ltd., Hamilton, Ont.
Fowler's Canadian Co., Ltd., Hamilton, Ont.
Gordon, Ironsides & Fares Co., Ltd., Logan Ave. W., Winnipeg, Man.
Gunn's Ltd., Toronto, Ont.
Ingersoll Packing Co., Ltd., Ingersoll, Ont.
Laing Packing & Provision Co., Ltd., Mill Street, Montreal, Que.
St. Thomas Packing Co., Ltd., The, St. Thomas, Ont.
Sussex Packing Co., Ltd., Sussex, N.B.
Swift Canadian Co., Ltd., Winnipeg, Man.
Tilsonburg Packing Co., The, Tilsonburg, Ont.
Western Packing Co. of Canada Ltd., 37 William Street, Montreal, Que.
Wilson, The B., Co., Ltd., Victoria, B.C.

WHOLESALE DEALERS AND EXPORTERS OF BRAN AND SHORTS

Ashbury, T. H. & Sons, Oakville, Ont.
Atkinson, G. D., Milling Co., Cornwall, Ont.
Bird, H. E., Nokomis, Sask.
Brant Milling Co. (The), Brantford, Ont.
Calder, Fraser Co., Ltd., Dartmouth, N. S.
Campbell, W. J., Bloomfield, Ont.
Campbell Flour Mills Co., Ltd., Toronto, Ont.
Cardston Milling Co., Ltd. (The), Cardston, Alta.
Carlow Milling Co. (The), Belleville, Ont.
Chouillou & Co., C. A., 14 Place Royale, Montreal, Que.
Cook, N. Sons & Co., Hensall, Ont.
Crooks, Robt., Co. of New York, 11 St. Sacremant St., Montreal, Que.
Dominion Flour Mills, Ltd., Brantford, Ont.
Edmonton Milling Co., Ltd., Strathcona, Alta.
Ellison Milling & Elevator Co., Ltd., Lethbridge, Alta.
Estevan Flour Mills, Estevan, Sask.
Forrest-Watson Milling Co., Atwood, Ont.
Goldie, Jas., Co., Ltd., Guelph, Ont.
Grenfell Milling & Elevator Co., Grenfell, Sask.
Harvey & Son, R. G., Lunhurst, Ont.
Hilborn, Jos., Blair, Ont.
Hodgson & Gardner, Swan Lake, Man.
Howson & Brocklebank, Wingham, Ont.
Lake of the Woods Milling Co., Lake of the Woods Bldg., Montreal, Que.
Lamont, I. R. & Sons, Melita, Man.
Leitch Bros. Flour Mills, Ltd., Oak Lake, Man.
Lukes, Samuel, Holland St., Bradford, Ont.
McDonald & Robb, Valleyfield, Que.
McLachlin Bros., Ltd., Arnprior, Ont.
Master, Irvine, Berlin, Ont.
Maple Leaf Milling Co., Ltd. (The), Grain Exchange, Winnipeg, Man.

Bran & Shorts.—(Continued).

Medicine Hat Milling Co., Medicine Hat, Alta.
Monro, Wm., Thorold, Ont.
Moore Milling Co., Ltd., Qu'Appelle, Sask.
Moysey & Co., A. B., 43 Scott St., Toronto, Ont.
Noble, Estate of Robt., Norval, Ont.
Pembroke Milling Co. (The), Ltd., Pembroke, Ont.
Peterborough Cereal Co., Ltd., Peterborough, Ont.
Pfeffer Bros., Listowel, Ont.
Reimer, Garkman & Friesen, Steinbach, Man.
Saskatoon Milling & Elevator Co., Ltd., Saskatoon, Sask.
Schmidt & Co., Ltd., E. A., 301 Board of Trade, Montreal, Que.
Shirk & Snider, Ltd., Bridgeport & Baden, Ont.
Smith & Co., A. C., 101-105 Union St., West, St. John, N.B.
Spink, Ltd., J. L., Flour Miller, Toronto, Ont.
Stevens & Miller, 437 Board of Trade, Montreal, Que.
Treleaven Bros., Lucknow, Ont.
Turner & Co., Milfort, Sask.
Watford Milling Co., Ltd., Watford, Ont.
Western Canada Flour Mills Co., Ltd., B 14 Board of Trade, Montreal, Que.
Western Milling Co., Ltd., Calgary, Alta.
Wilson, Wm., Indian Head, Sask.
Wood Milling Co., 71-75 Main St. East, Hamilton, Ont.
Woodburn Milling Co., Ltd., Glencoe, Ont.
Wylie Milling Co., Ltd., (The), Almonte, Ont.

WHOLESALE DEALERS AND EXPORTERS OF BUTTER

Adolph, M. I., Wallace, Ont.
Allan & Allison, Comber, Ont.
Alexander, Jas., 598-604 St. Paul St., Montreal, Que.
Allen, H. H., Wheatley, Ont.
Alsfeldt Cheese & Butter Mfg. Co., Con. 7, T. P. of Normanby, Grey Co., Ont.
A. A. Ayer & Co., Ltd., 576 St. Paul St., Montreal, Que.
Betts, C. E., Renfrew, Ont.
Brandon Creamery & Supply Co., Ltd., Brandon, Man.
Brandon Produce Co., Brandon, Man.
Brassard, J. H., Jonquieres, Que.
Brown, Jas. P., St. Chrysostome, Que.
Burgessville Cheese & Butter Co., Burgessville, Ont.
Campbell & Griffin, Ltd., Calgary, Alta.
Canadian Milk Products, Ltd., Toronto, Ont.
Cardigan Dairying Co., Cardigan, P.E.I.
Chafee, E. E., Summerstown, Ont.
Cheetham, S. S., Gananoque, Ont.
Chilliwack Creamery Co., Ltd., Chilliwack, B.C.
City Dairy Co., Ltd., Toronto, Ont.
Clements & Co., Ltd., St. John, N..B.
Collett & Co., 111-115 King St., Montreal, Que.
Collins, T. & Co., North Market, St. John, N.B.
Co-operative Central Creamery Co., Summerside, P.E.I.
Cormier, J. Arthur, St. Antoine, Vercheres, Que.
Costin, J. F., Cathcart, Ont.
Cranston, R. W., Laurence Sta., Ont.
Crescent Creamery Co., Ltd., Winnipeg, Man.
Dairy School, St. Hyacinthe, Que.
Dalrymple & Sons, Jas., 594-598 St. Paul St., Montreal, Que.
Daneault, A., Nicolet, Que.
Ont.
Davies Co., Ltd., Wm., 24 Queen St., W., Toronto,
Davies, Wm., Co., Ltd., 521 Front St. E., Toronto, Ont.
Davies, Ltd., Mill St., Montreal, Que.
Dawson, H. W., Colborne St., Toronto, Ont.
Dubuc, E., Nicolet, Que.
Duff, John, & Son, Ltd., Hamilton, Ont.
Dunk River Dairying Co., Central Bedeque, P.E.I.
Dunstaffnage Cheese & Butter Co., Ltd., Dunstagnaffe, P.E.I.
Earlville Butter & Cheese Mfg. Assn., Earlville, Alta.
East Point Dairying Association, East Point P.O., P.E.I.
Edenbank Creamery Co., Ltd., Chilliwack, B.C.
Edgett, Grady Co., Ltd., Summerside, P.E.I.
Edmonton Produce Co., Ltd., Edmonton, Alta.
Ernst & Son, J., Mahone Bay, N.S.
Fearman Co., Ltd., F. W., Hamilton, Ont.
Federal Dairying Co., Belfast, P.E.I.
Flavelle, Ltd., Lindsay, Ont.
Fowler, Frederick, 47 William St., Montreal, Que.
Friesen, Pete, P.O. Lone Pine, Alta.
Gibbon, J. G. & M., Lewisville, Ont.
Graham Bros. & Co., iKnmount, Ont.
Gunn, Langlois & Co., 241 St. Paul St., Montreal, Que.
Gunns, Ltd., Toronto, Ont.
Hanson & Johnstone, Highland Park, Alta.
Harris Co., J., Camrose, Alta.
Hislop & Hunter, 117 King St., Montreal, Que.
Hodge & Co., Geo., 118 King St., Montreal, Que.
Hodgson Bros. & Rowson, Ltd., 65-69 William St., Montreal, Que.
Hopkins, G. G., Shedden, Ont.
Hussenot, C., 351 Ontario E., Montreal, Que.
Hygienic Fresh Milk Co., Ltd., Antigonish, N.S.
Ingersoll Packing Co., Ltd., Ingersoll, Ont.
Innisfail Union Butter & Cheese Mfg. Assn., Ltd., Innisfail, Alta.
Kensington Dairying Assn., Kensington, P.E.I.
Knee-Hill Creamery, Sunnyslope, Alta.
Lake Verd Dairying Co., Ltd., Lake Verd, P.E.I.
Lakeview Creamery Assn., Lakeview, Alta.
Lambton Creamery Co., Ltd., Petrolea, Ont.
Langenburg Creamery Assn., Ltd., Langenburg, Sask.
Laurentia Milk Co., Ltd., Toronto, Ont.
Livingston & McEwen, Smiths Falls, Ont.
Lovell & Christmas, Ltd., 106-112 King St., Montreal, Que.
La Cie de Laiterie, St. Laurent, 21-23 St. Peter St., Monteral, Que.
Lloydminster & District Creamery Co., Lloydminster, Sask.
Lemon Bros., Owen Sound, Ont.
Lister, C. E., 39 King St., E., Chatham, Ont.
Limoges, Z., 614 St. Paul St., Montreal, Que.
McGillis, Alex. D., 29 William St., Montreal, Que.
McCullough & Co., A., 88 Grey Nun St., Montreal, Que.
McLean, J. A., Produce Co., Ltd., 74-76 Front St. E., Toronto, Ont.
Matthews, Geo., Co., Ltd., Hull, Que.
Medicine Valley Creamery Co. (The), Evarts, Alta.
Montreal Dairy Co., Ltd., Montreal, Que.
Moore-Uren & Co., St. George, Ont.
Mount Stewart Dairying Co., Mount Stewart, P.E.I.
Milne & Gunn, 137 Water St., Vancouver, B.C.
Millar, J. F., Bentley, Alta.
Murray Harbor North Dairying Co., Murray Harbor North, P.E.I.
New Glasgow Dairying Co., New Glasgow, P.E.I.
New Perth Dairying Co., New Perth, P.E.I.
Nickerson & Hart, 198 Argyle St., Halifax, N.S.
Olive, Dorion & Stroud, 55 William St., Montreal, Que.
Orwell Dairying Co., Orwell, P.E.I.
Ottawa Dairy Ltd., Ottawa, Ont.
Princeton Creamery Co., Princeton, Ont.
Park Blackwell Co., Ltd., Cor. Front & Bathurst Sts., Toronto, Ont.
Paterson Bros., 516 Yates St., Victoria, B.C.
Ryan, Wm., Co., Ltd., 72 Front St., Toronto, Ont.
Rutherford, Marshall & Co., 68 Front St., Toronto, Ont.
Rosenroll Co-operative Dairy Assn., Rosenroll, Alta.
Robertson, Morris & Co., 913 Dominion Trust Bldg., Vancouver, B.C.
Reid, W. W., North Hatley, Que.
Rosebud Creamery, Carstairs, Alta.
Red Lodge Creamery, Red Lodge, Alta.
St. Mary's Creamery Co., Ltd., St. Mary's, Ont.
Sanderson, James A., Oxford Station, Ont.
Sussex Milk & Cream Co., Ltd., 38 Sydney St., St. John, N.B.
Springford Cheese & Butter Factory, Springford, Ont.
Sprague, Mark, Belleville, Ont.
Snell, Fred, Norwich, Ont.
Smith & Proctor, 116 Barrington St., Halifax, N.S.
Standard Dairying Co., Launching Palace, Township 55, P.E.I.
Stratford Creamery, 108 Erie St., Stratford, Ont.
Smith, A. C. & Co., 101-105 Union St., West St. John, N.B.

Butter.—(Continued).

Stanley Bridge Dairying Co., Stanley Bridge, P.E.I.
Spring Lake Dairy Assn., Spring Lake, Alta.
Smith, T. H. & Co., 70 Colborne St., Toronto, Ont.
Swift Canadian Co., Ltd., Winnipeg, Man.
Sylestre, J. E., Nicolet, Que.
St. Lawrence Produce Co., Brockville, One.
St. Thomas Packing Co., Ltd., The, St. Thomas, Ont.
Three Hills Creamery, Three Hills, Alta.
Trimble & Edwards, Pine Lake, Alta.
Tryon Dairying Co., North Tryon, P.E.I.
Tantallon Creamery Assn. (Agents: Dairy Dept. of Sask. Government), Tantallon, Sask.
Tindastoll Butter & Cheese Mfg. Assn., Markerville, Alta.
Viking Co-operative Creamery Assn., Viking, Alta.
Williams Co., Ltd., F. E., Princess St., St. John, N.B.
Ward & Co., Joseph, 115 Youville Square, Montreal, Que.
Whyte Packing Co., Ltd., 37 William St., Montreal, Que.
Wetaskiwin Produce Co., Wetaskiwin, Alta.
Walkerton Egg & Dairy Co., Ltd., Walkerton, Ont.
Williams, J. H., Embro, Ont.
Wetaskiwin Creamery Assn., Ltd., Wetaskiwin, Alta.
Williamsburg Butter & Cheese Factory, Williamsburg, Ont.
Warrington, G. D., 30 William St., Montreal, Que.
Whyte Packing Co., Ltd., The, Stratford, Ont.

WHOLESALE DEALERS AND EXPORTERS OF CATTLE

Burns & Co., Ltd., P., Vancouver, B.C.
Cormier, J. Arthur, St. Antoine, Vercheres Co., Que.
Fox, George H., Selkirk, Man.
Gordon, Ironsides & Fares, Logan Ave., Winnipeg, Man.
Hadwen, G. H., Duncans, B. C.
Hume & Co., Alex, Menie, Ont.
Logan Bros., Amherst Pt., Co. Cumberland, N.S.
McGregor, Jas. D., Brandon, Man.
Maple Creek, Town of, Sask.
Maybe & Wilson, Western Cattle Market Toronto Ont.
O'Brien Wm., Windsor, N.S.
Peacock, Edward, Farmer, St. Catharines, Ont.
Robitaille Eureka Distillery Ltd. (The), Quebec, Que.
Rosebud Creamery, Carstairs, Alta.
Steves, W. C., Steveston, B.C.
Wells & Sons, A. C., Chilliwack, B.C.

WHOLESALE DEALERS AND EXPORTERS OF CHEESE

Alexander, Ltd., Jas., 598-604 St. Paul St., Motnreal, Que.
Attercliffe Sta. Cheese Factory, Attercliffe, Ont.
Ayer, A. A. & Co., Ltd., 56 St. Paul St., Montreal, Que.
Bellamy Seymour, Toledo, Ont.
Betts, C. E., Renfrew, Ont.
Bond, B., York, Haldimand Co., Ont.
Boucher & Sons, J. T., Cochrane, Alta.
Boyes, Frank, Township of North Dorchester, Ont.
Brae Cheese Co., Menie, Ont.
Brenton & Son, F. W., Belleville, Ont.
Brook Co-operative Cheese Mfg. Assn. (The), The Brook, Ont.
Burgessville Cheese & Butter Co., Burgessville, Ont.
Campbell, J. A., Ormond, Ont.
Campbell & Griggin, Ltd., Calgary, Alta.
Cardigan Dairying Co., Cardigan, P.E.I.
Chaffee, E. E., Summerstown, Ont.
Cheese Syndicate, Roberval, Que.
Cheettham, S. S., Gananoque, Ont.
Collett & Co., 111-115 King St., Montreal, Que.
Collins & Co., T., North Market, St. John, N.B.
Connolly Bros., Thamesford, Ont.
Cook & Son, W. S., Belleville, Ont.
Co-operative Central Creamery Co., Summerside, P.E.I.
Costin, J. F., Cathcart, Ont.
Cranston, R. R., Lawrence Station, Ont.
Crinan Cheese Factory, Crinan, Ont.
Crystal Springs, Hawkesville, Ont.
Dairy School, St. Hyacinthe, Que., Sec. O. E. Dalaire.
Dalrymple Sons, Jas., 594-598 St. Paul St., Montreal, Que.
Daneault, A., Nicolet, Que.
Davies Co., Ltd., The Wm., 24 Queen St. W., Toronto, Ont.
Davies, Ltd., Mill St., Montreal, Que.
Davis Co., Ltd., Wm., 521 Front St. E., Toronto, Ont.
De Laval Dairy Supply Co., Ltd., Peterborough, Ont.
Dorchester nion Cheese Co., Dorchester, Ont.
Dubuc, E., Nicolet, Que.
Duff, John & Son, Ltd., Hamilton, Ont.
East Point Dairying Association, East Point, P.E.I.
Edgett, Grady Co., Ltd., Summerside, P.E.I.
Edmonton Produce Co., Ltd. (The), Edmonton, Alta.
Emerald Dairy Association, Emerald P.O., P.E.I.
Ethel Cheese Factory, Township of Grey, County Huron, Ont.
Fearman, F. W. Co., Ltd., Hamilton, Ont.
Flaelle, Ltd., Lindsay, Ont.
Fowler, Frederick, 47 William St., Montreal, Que.
Gunns, Ltd., Toronto, Ont.
Gunn, Langlois & Co., Ltd., 241 St. Paul St., Montreal, Que.
Harley Cheese Factory, Harley, Ont.
Holmes, J. H., Picton, Ont.
Hislop & Hunter, 117 King St., Montreal, Que.
Hodge & Co., Geo., 118 King St., Montreal, Que.
Hodgson Bros. & Rowson, Ltd., 65-69 William St., Montreal, Que.
Hopkins, G. G., Shedden, Ont.
Hussenot, C., 35 Ontario E., Montreal, Que.
Hygienic Fresh Milk Co., Ltd., Antigonish, N.S.
Hyland Cheese & Butter Co., Ltd., Ameliasburg, Ont.
Ingersoll Packing Co., Ltd. (The), Ingersoll, Ont.
Kensington Dairying Assn., Kensington, P.E.I.
Lake Verd Dairying Co., Ltd., Lake Verd, P.E.I.
Lakeview Cheese & Butter So., Ltd., Lakeview, Ont.
Limoges, Z., 614 St. Paul St., Montreal, Què.
Livingston & McEwen, Smiths Falls, Ont.
Lovell & Christmas, Ltd., 106-112 King St., Montreal, Que.
McCullough & Co., A., 88 Grey Nun St., Montreal, Que.
McGillis, Alex., D., 29 William St., Montreal, Que.
MacLaren Imperial Cheese Co., Ltd., 6 Front St. E., Toronto, Ont.
McLean Produce Co., Ltd., The J. A., 74-76 Front St. E., Toronto, Ont.
MacLeod, K. D., Dalkeith, Ont.
Malcolm, Andrew, 29-30 South Wharf, St. John, N.B.
Matthews Co., Ltd. (The Geo.), Hull, Que.
Millar, J. F., Bentley, Alta.
Miller & Co., H. S., Picton, Ont.
Milne & Gunn, 137 Water St., Vancouver, B.C.
Moore-Uren & Co., St. George, Ont.
Mount Stewart Dairying Co., Mount Stewart, P.E.I.
Murray Harbor North Dairying Co., Murray Harbor, North, P.E.I.
New Dominion Dairying Co., New Dominion, lot 65, Queens Co., P.E.I.
New Glasgow Dairying Co., New Glasgow, P.E.I.
New Perth Dairying Co., New Perth, P.E.I.
Nickerson & Hart, 198 Argyle St., Halifax, N.S.
North Street Cheese Factory, Scottsville, Ont.
O'Leary Dairying Co., O'Leary, Prince Co., P.E.I.
Olive, Dorion & Stroud, 55 William St., Montreal, Que.
Orwell Dairying Co., Orwell, P.E.I.

Cheese.—(Continued).

Paget, James N., Canboro, Ont.
Park, Blackwell Co., Ltd., Cor. Front & Bathurst Sts., Toronto, Ont.
Payne & Ennis, Brinston, Ont.
Pond Mills Cheese Factory, Pond Mills, Ont.
Red Point Dy. Association, Red Point, P.E.I.
Robertson, A. W., Mohawk, Ont.
Rockdale No. 1, Rockdale, Ont.
Rutherford Marshall & Co., 68 Front St., Toronto, Ont.
Ryan Co., Ltd. (The Wm.), 72 Front St., Toronto, Ont.
St. Lawrence Produce Co., Brockville, Ont.
St. Patrick's Institute, Grand River, lot 14, P.E.I.
St. Thomas Packing Co., Ltd., St. Thomas, Ont.
Sanderson, James A., Oxford Station, Ont.
Smith & Co., T. H., 70 Colborne St., Toronto, Ont.
Snell, Fred., Norwich, Ont.
Souris East Dairying Co., Souris, P.E.I.
Springford Cheese & Butter Factory, Springford, Ont.
Sprague, Mark, Belleville, Ont.
Stanley Bridge Dairying Co., Stanley Bridge, P.E.I.
Stratford Creamery, 108 Erie St., Stratford, Ont.
Sussex Milk & Cream Co., Ltd., 38 Sydney St., St. John, N.B.
Swift Canadian Co., Ltd., Winnipeg, Man.
Sylvestre, J. E., Nicolet, Que.
Tait, P. W., Cornwall, Que.
Thames Dairy Co., Dorchester Sta., Ont.
Tignish & Palmer, Rd. Dairying Assn., Tignish, P.E.I.
Ward & Co., Joseph, 115 Youville Square, Montreal, Que.
Warrington, G. D., 3 William St., Toronto, Ont.
Whyte Packing Co., Ltd., 37 William St., Montreal, Que.
Williams Co., Ltd., F. E., Princess St., St. John, N.B.
Williams, J. H., Embro, Ont.
Williamsburg Butter & Cheese Factory, Williamsburg, Ont
Wiltshire Dairying Co., Wiltshire, P.E.I.
York Road Cheese & Butter Co., Ltd., Smithfield, Ont.

Cheese, Cream.

City Dairy Co., Ltd., Toronto, Ont.
Ingersoll Packing Co., Ltd. (The), Ingersoll, Ont.
MacLaren Imperial Cheese Co., Ltd., 69 Front St. E., Toronto, Ont.
Smith & Proctor, 116 Barrington St., Halifax, N.S.

Cheese, Cream, for Tropical Trade.

Smith & Proctor, 116 Barrington St., Halifax, N.S.

Cheese, Oka.

Reds, Peres, Trappistes, Oka, Que.

Cheese, Stiltons.

Attercliffe Sta., Cheese Factory, Attercliffe, Ont.
Connolly Bros., Thamesford, Ont.

WHOLESALE DEALERS AND EXPORTERS OF EGGS

Adolph, M. I., Wallace, Ont.
Brandon Produce Co., Brandon, Man.
Campbell & Griffin, Ltd., Calgary, Alta.
Clements & Co., Ltd., St. John, N.B.
Collett & Co., 111-115 King St., Montreal, Que.
Dalrymple & Sons, Jas., 594-598 St. Paul St., Montreal, Que.
Davies Co., Ltd., The Wm., 24 Queen St., W., Toronto, Ont.
Davies Co., Ltd., The Wm., 521 Front St., E., Toronto, Ont.
Davies, Ltd., Mill St., Montreal, Que.
Dawson, H. W., 90 Colborne St., Toronto, Ont.
Duff, John, & Son, Ltd., Hamilton, Ont.
Edmonton Produce Co., Ltd. (The), Edmonton, Alta.
Ernstt & Son, J., Mahone Bay, N.S.
Flavelle, Ltd., Lindsay, Ont.
Gunns, Ltd., Toronto, Ont.
Gunn, Langlois & Co., Ltd., 241 St. Paul St., Montreal, Que.
Harris Co., J., Camrose, Alta.
Hislop & Hunter, 117 King St., Montreal ,Que.
Lemon Bros., Owen Sound, Ont.
Limoges, Z., 61 St. Paul St., Montreal, Que.
Lister, C. E., 39 King St. E., Chatham, Ont.
Matthews-Laing, Ltd., Montreal, Que.
McCullough & Co., A., 88 Grey Nun St., Montreal, Que.
McLean Produce Co., Ltd., The J. A., 74-76 Front St., Toronto, Ont.
Matthews Co., Ltd., Geo., Hull, Que.
Milne & Gunn, 137 Water St., Vancouver, B.C.
Nickerson & Hart, 198 Argyle St., Halifax, N.S.
Parisian Creamery, Trochu, Alta.
Park, Blackwell Co., Ltd., Cor. Front & Bathurst Sts., Toronto, Ont.
Paterson Bros., 516 Yates St., Victoria, B.C.
Rutherford Marshall & Co., 68 Front St., Toronto, Ont.
Ryan Co., Ltd., The Wm., 72 Front St., Toronto, Ont.
St. Lawrence Produce Co., Brockville, Ont.
Sanderson, James A., Oxford Station, Ont.
Sheet Metal Products Co. of Canada, Ltd., Toronto, Ont., and Winnipeg, Man.
Smith & Co., T. H., 70 Colborne St., Toronto, Ont.
Sussex Milk & Cream Co., Ltd., 38 Sydney St., St. John, N.B.
Walkerton Egg & Dairy Co., Ltd., Walkerton, Ont.
Wetaskiwin Produce Co., Wetaskiwin, Alta.
Wheeler & Bain, Toronto, Ont.
Whyte Packing Co., Ltd., 37 William St., Montreal, Que.
Winnipeg Ceiling & Roofing Co., Winnipeg, Man.

WHOLESALE DEALERS AND EXPORTERS OF FISH

Bowman, J. & Co., Port Arthur, Ont.
B. C. Canning Co., Ltd., Victoria, B.C.
B. C. Packers' Association, Vancouver, B.C.
Canadian Fish & Cold Storage Co., Prince Rupert, B.C.
Connors Bros., Ltd., Black's Harbor, N.B.
Dominion Fish Co., Ltd., Wiarton, Ont.
Farquhar & Co., Ltd., Halifax, N.S.
Guest, The W. J. Fish Co., Winnipeg, Man.
Hatton, D. Co., Montreal, Que.
James, F. T., Toronto, Ont.
Leonard, Bros., Montreal, Que.
Loggie, W. S. Co., Chatham, N.B.
Maritime Fish Corporation, Montreal, Que.
Matthews & Scott, Queensboro, N.S.
Robin, Jones & Whitman, Ltd., Halifax, N.S.
St. Mungo Canning Co., Ltd., New Westminster, B.C.
Smith, N. M., Ltd., Halifax, N.S.
Spooner, Wm., Montreal, Que.
Wallace Fisheries, Lttd., Vancouver, B.C.
Whitman, A. N. & Son, Ltd., Canso, N.S.

WHOLESALE DEALERS AND EXPORTERS OF FRUIT

Alvinston Fruit Growers' Assn., Aughrim, Ont.
Barry & Sons, John, 179 McGill St., Montreal, Que. (green).
Beman, E. C., Newcastle, Ont.
Biggs Fruit & Produce Ct., Ltd., The, Burlington, Ont.
Campbell & Griffin, Ltd., Calgary, Alta.
Chilliwack Farmers' Exchange, Chilliwack, B.C.
Clements & Co., Ltd., St. John, N.B.
Co-operative Fruit Co., Ltd., Charlottetown, P.E.I.
Dawson, H. W., 90 Colborne St., Toronto, Ont.
Ernst & Son, J. Mahone Bay, N.S.
Forest Fruit Growers' Assn., Forest, Ont.
Fowler, R. C., Burlington, Ont.
Fretz, C., Vineland, Ont.
Furminger, S. D., St. Catharines, Ont.
Georgian Bay Milling & Power Co., Ltd., Meaford, Ont.
Grand Forks Fruit Growers' Assn., Grand Forks, B.C.
Hart & Tuckwell, 163 McGill St., Montreal, Que.
Kelowna Farmers Exchange, Ltd., Kelowna, B.C.
Lemon Bros, Owen Sound, Ont.
McDonald, J. A., 524 Vernon St., Nelson, B.C.
McKenzie, Thos. W., Port Hammond, B.C.
Nickerson & Hart, 198 Argyle St., Halifax, N.S.
Rattray & Sons, Ltd., O., 28 St. Sulpice St., Montreal, Que. (dried fruit).
Robinson, D. E. & Company, Ingersoll, Ont.
Roilton, A., Fonthill, Que.
Smith, E. D. & Son, Ltd., Winona, Ont.
St. Catharine Cold Storage & Forwarding Co., Ltd., St. Catharines, Ont.
St. John Produce Co., Ltd., St. John, N.B.
Stewart & Co., Wm., 224 Board of Trade, Montreal, Que.
Stringer, W. B., 62 Front St. East, Toronto, Ont.
Trappistes, Reds. Peres, Oka, Que.
Victoria Fruit Growers' Exchange, Ltd., Victoria, B.C.
Walker, John H., Burlington, Ont.
Wanless, I. G., Vernon, B.C.

WHOLESALE DEALERS AND EXPORTERS OF FURS (Raw)

Montreal, Que.—

British Canadian Fur & Trading, 413 St. Paul.
Canadian Raw Fur Co., 417 St. Paul.
Hudson's Bay Co., 56 McGill.
Johnson, Hiram, Limited, 494 St. Paul.
Levinson, N., 508 St. Paul.
Pierce, A. & E., 500 St. Paul.
Pollak, Edward, 442 St. Paul.
Revillon Freres Trading Co., 134 McGill.
Silver, N., 416 St. Paul.
Trilling, D. W., New Birks' Building.
Ullman, Jos., 525 St. Paul.
Vogel, A. & Co., 496 St. Paul.

Toronto, Ont.—
Hallam, Ltd., John, 111 Front East.
Sloman, M. Co., Ltd., 25 Jarvis.
Wagner, Brasier & Co., 86 Front East.
Yaffe, J., 72 Colborne.

WHOLESALE DEALERS AND EXPORTERS OF GRAIN

Alberta Pacific Elevator Co., Ltd., Calgary, Alta.
Allen, J. H., Wheatley, Ont.
Battleford Municipal Mill & Elevator, Battleford, Sask.
Besleck, John J., Loo Building, Vancouver, B.C.
British Empire Grain Co., Ltd., Board of Trade, Montreal, Que.
British America Elevator Co., Ltd. (The), 509 Grain Exchange, Winnipeg, Man.
Bruneau, Currie & Co., 12 Place Youville and 21 Common St., Montreal, Que.
Caltwell & Co., C., 102 Front St., E., Toronto, Ont.
Carruthers & Co., Ltd., Jas., Board of Trade, Montreal, Que., also Toronto and Winnipeg.
Campbell & Wilson, 433 Grain Exchange, Winnipeg, Man.
Canada Grain Co., Ltd., Board of Trade Building, Toronto, Ont.
Chaplin Bros. & Co., 315 Board of Trade, Montreal, Que.
Chouillou & Coo., C. A., 14 Place Royale, Montreal, Que.
Columbia Flouring Mills Co., Ltd., Enderby, B.C.
Continental Grain Co., Ltd., Winnipeg, Man.
Crane & Baird, 54 St. Francois Xavier St., Montreal, Que.
Davidson & Smith, Fort William, Ont.
Delahey Bros., Cobden, Ont.
Denne & Co., H. V., Newmarket, Ont.
Dominion Elevator Co., Ltd., Winnipeg, Man.
Dwyer Co., Ltd., W. H., 302 Board of Trade Bldg., Montreal, Que.
Dwyer & Co., Ltd., W. H., 49 Metcalfe St., Ottawa, Ont.
Edmonton Produce Co., Ltd. (The), Edmonton, Alta.
Estevan Flour Mills, Estevan, Sask.
Fowlds & Son, T. M., Campbellford, Ont.
Fraser, David, Federal Life Building, Hamilton, Ont.
Georgian Bay Milling & Power Co., Ltd., Meaford, Ont.
Gould, Harvey, J., Uxbridge, Ont.
Harris Co., J., Camrose, Alta.
Hawken Milling Co., Ltd., Wallaceburg, Ont.
Horn & Co., David, Port Arthur, Ont.
Howson & Brocklebank, Wingham, Ont.
Hume, John, Port Hope, Ont.
Lamane & Cie., W., 63 Atwater St., St. Henri de Montreal, Que.
Lucas, James, Port Perry, Ont.
McBean & Co., F. J., Board of Trade Building, Toronto, Ont.
McNairn & Co., Ltd., S., 43 Scott St., Toronto, Ont.
MacEachern & McCallum, Wetaskiwin, Alta.
MacLeod, K. D., Dalkeith, Ont.
Maple Creek, Town of, Sask.
Martin Bros., Mount Forest, Ont.
Matthews & Co., W. D., Board of Trade Building, Toronto, Ont.
Matthews Grain Co., 501 Board of Trade, Toronto, Ont.
Michaud Bros. & Co., Board of Trade, Montreal, Que.
Milne & Glennie Co., Galt, Ont.
Melady & Co., Board of Trade Building, Toronto, Ont.
Moysey & Co., A. B., 43 Scott St., Toronto, Ont.
Marshall & Son, W., B24 Board of Trade, Montreal, Que.
Pollard, Alex., Dutton, Ont.
Parrish & Heimbecker, Ltd., Board of Trade, Toronto, Ont.
Pearson, Edward, Minnedosa, Man.
Paterson & Co., N. M., Fort William, Ont.
Porter, Worsnop & Co., 417 Winch Building, Vancouver, B.C.
Peters, Sons, Ltd., C. H., Peters Wharf, St. John, N.B.
Quintal & Lynch, 29 McGill St., Montreal, Que.
Richardson & Son, James, Commercial Wharf, Kingston, Ont.
Raphael & Co., T. W., 43 St. Sacrament St., Montreal, Que.
Reckin & Sons, Charles, Wiarton, Ont.
Reimer, Barkman & Friesen, Steinbach, Man.
Robert, Jos. B., Elecgtric & Milling Co., Beauharnois, Que.
St. John Produce Co., Ltd., St. John, N.B.
St. Arnaud & Beauchamp, St. Nicholas Building, Montreal, Que.
Scott & Co., Ltd., Jas., 651 St. James Street, Montreal, Que.
Stark Bros. & Co., 202 Board of Trade Building, Toronto, Ont.
Stevens & Miller, 437 Board of Trade Building, Montreal, Que.
Schmidt & Co., E. A., 301 Board of Trade, Montreal, Que.
Shaffner & Co., J. B., Halifax, N.S.

Grain.—(Continued).

Schwalm & Fair, Glenboro, Man.
Stringer & Co., J. B., Chatham, Ont.
Stewart & Co., Wm., 224 Board of Trade, Montreal, Que.
Stevens & Co., T. M., Vancouver, B.C.
Stark, James, Paisley, Ont.
Taylor, C. R., 316 Board of Trade Building, Montreal, Que.
Tavistock Milling Co., Ltd., Tavistock, Ont.
Vancouver Milling & Grain Co., Ltd., Vancouver, B.C.
Ward & Co., Joseph, 115 Youville Square, Montreal, Que.
Wattson, Neil, Mull, Ont.
Western Ontario Flour Mills (The), Tupperville, Ont.
Wylie Milling Co., Ltd. (The), Almonte, Ont.
Wetaskiwin Produce Co., Wetaskiwin, Alta.
Woodburn Milling Co., Ltd., Glencoe, Ont.

WHOLESALE DEALERS AND EXPORTERS OF HAY

Bickerdike, Robert, St. James St., Montreal, Que.
Brassard, J. H., Jonquiere, Que.
Chaplin Bros & Co., 315 Board of Trade Building, Montreal, Que.
Chicoine, Vital, Vercheres, Que.
Cormier, J. Arthur, St. Antoine, Vercheres Co., Que.
Crooks Co. of New York, Robert, 11 St. Sacrament St., Montreal, Que.
Delahey Bros., Cobden, Ont.
Desrosiers, H., 64 Young Street, Montreal, Que.
De Wolf & Son, J. A. S., 135 Upper Water St., Halifax, N.S.
Dwyer Co., Ltd., W. H., 302 Board of Trade Bldg., Montreal, Que.
Dwyer Co., Ltd., W. H., 49 Metcalfe St., Ottawa, Ont.
Ernest & Son, J., Mahone Bay, N.S.
Fowlds & Sons, H. M., Hastings, Ont.
Fraser, David, Federal Life Building, Hamilton, Ont.
Garner & Co., T., Palermo, Ont.
Gould, Harvey J., Uxbridge, Ont.
Hickman, Chas. S., Dorchester, N.B.
Jamieson & Co., Ltd., R. C., 26 Nazareth St., Montreal, Que.
Kirkpatrick, James A., Shubenacadie, N.S.
Lamane & Cie., W., 630 Atwater St., St. Henrie de Montreal, Que.
Ledoux, Seraphin, 198 Notre Dame St. East, Montreal, Que.
Lefebvre & Mahon, Howick Station, Que.
McCannon, T. J., Moose Jaw, Sask.
MacLeod, K. D., Dalkeith, Ont.
McLeod Milling Co., Ltd. (The), 54 George St., Stratford, Ont.
McLure, Wm., Pictou, N.S.
McNairn & Co., Ltd., S., 43 Scott St., Toronto, Ont.
Milne & Glennie Co., Gatl, Ont.
Morneault, Phileas, Plourd, N.B.
Munroe, D. C., Alvinston, Ont.
O'Brien, Wm., Windsor, N.S.
Peacock, Edward, Farmer, St. Catharines, Ont.
Peters Sons, Ltd., C. H., St. John, N.B.
Pollard, Alex., Dutton, Ont.
Porter, Manzer, Ltd., Perth, N.B.
Prime Co., Ltd., L. C., West End, St. John, N.B.
P. E. Island Hay & Produce Co., 187 Great George St., Charlottetown, P.E.I.
Quintal & Lynch, 29 McGill St., Montreal, Que.
Robert, Jos. B., Electric & Milling Co., Beauharnois, Que.
St. John Produce Co., Ltd., St. John, N.B.
Schmidt & Co., Ltd., E. A., 301 Board of Trade, Montreal, Que.
Scott & Co., Ltd., James, 651 St. James Street, Montreal, Que.
Seaman, J. H. & J. W., Barronsfield, N.S.
Shaffner & Co., J. B., Halifax, N.S.
Perley, Smith & Co., Upper Woodstock, N.B.
Smith & Co., A. C., 101-105 Union St., West St. John, N.B.
Springer, N. S., Mill St., St. John, N.B.
Stevens & Miller, 437 Board of Hrade Building, Montreal, Que.
Ward & Co., Joseph, 115 Youville Square, Montreal, Que.
Watford Milling Co., Ltd., Watford, Ont.
Western Ontario Flour Mills, Tupperville, Ont.
Williams Co., Ltd., F. E., Princess St., St. John, N.B.
Wood Bros., Brantford, Ont.
Wylie Milling Co., Ltd., (The) Almonte, Ont.

Hay, Baled.

Black & Sons, Ltd., Joseph, Sackville, N.B.
Caldwell & Co., C., 102 Front St. E., Toronto, Ont.
Edgett, Grady Co., Ltd., Summerside, P.E.I.
Fawcett, Jr., W. W., Sackville, N.B.
Peters Sons, Ltd., C. H., St. John N.B.
Rickard, Wm., Newcastle, Ont.
Wood & Sons, Ltd., M., Sackville, N.B.

WHOLESALE DEALERS AND EXPORTERS OF HIDES

Adams, D., Vankleek Hill, Ont.
Appleby & Daley, Cobourg, Ont.
Arscott, John, Walkerton, Ont.
Baldwin, C. E., Coaticook, Que.
Bessinger & Co., Dufferin & Yukon, Vancouver, B.C.
Brosseau, Hormisdas, Howick, Que.
Canadian Hide & Skin Co., 37 Sherbourne, Toronto, Ont.
Carter, E. T. & Co., 87 Front E. Toronto, Ont.
Carter, F. N., St. Stephen, N.B.
Claude, J. R., 337 St. Paul E., Montreal.
Cloutier, J. A., 445 St. Valier, Quebec, Que.
Colonial Hide Co., 290 Wellington, Montreal, Que.
Cram, J. F. & Sons, Carleton Place, Ont.
Dumart & Co., Berlin, Ont.
Edmonton Hide & Fur Co., Edmonton, Alta.
Fulton Harlan Estate, Halifax, N.S.
Galarneau, Jos., 46 Caron, Quebec, Que.
Guest Bros., 1 Laing, Toronto, Ont.
Hallam, John, Ltd., 111 Front E., Toronto, Ont.
Harris Abattoir Co., Union Stock Yards, Toronto, Ont.
Howe, A. T. & Sons, 118 Ossington Ave, Toronto, Ont.
Jacobson & Goldberg & Co., 155 Alexander, Vancouver.
Keer, A., 734 Granville, Vancouver, B.C.
Kimble, John & Son, Ltd., St. John, N.B.
Kullman, Suly & Co., Victoria, B.C.
Labric, Jos., 473 St. Valier, Quebec, Que.
Lamphron, H., Grand Mere, Que.
Laurent, Wm., Louisville, Que.
Leadlay, E. & Co., 87 Front E., Toronto, Ont.
Long & Bisby, 41 John S., Hamilton, Ont.
Love, James, Calgary, Alta.
Maritime Hide Co., Victoriaville, Que.
Marquis, F., St. Malo, Quebec., Que.
Martin & Stewart, 177 Duke, Montreal, Que.
Mason, Wm. & Sons, Dundas, Ont.
Matthews-Blackwell, Ltd., Montreal, Que.
McKenzie, James, 98 Front E., Toronto, Ont.
McLean, H. & Co., Ottawa, Ont.
Montreal Hide & Calfskin Co., 20 Albert E., Montreal.
O'Neil, E. J., Guelph, Ont.
Pion, A., 344 Prince Edward, Quebec, Que.
Price, James, 750 St. Paul W., Montreal, Que.
Shee, E. A., 611 St. Valier, Quebec.
Soloman, A., 45 St. Alexander, Montreal, Que.
Thorntons, Ltd., Brantford & Hamilton, Ont.
Upham, H. W., Sussex, N.B.
Victoria Hide & Skin Co., Victoriaville, Que.
Wilbur, N. B. & Son, Elmsdale, N.S.
Wright, Thos. W. & Son, London, Ont.

WHOLESALE DEALERS AND EXPORTERS OF HOGS

Burns & Co., Ltd., P., Vancouver, B.C.
Coleman, H., Kincardine, Ont.
Enke. Max, Galiano, B.C.
Ernst & Son, J., Mahone Bay, N.S.
McGregor, Jas. D., 324 13th Street, Brandon, Man.
Maybe & Wilson, Western Cattle Market, Toronto, Ont.
Peacock, Edward, Farmer, St. Catharines, Ont.
Rosebud Creamery, Carstairs, Alta.
Stringer & Co., J. B., Chatham, Ont.
Wells & Sons, A. C., Chilliwack, B.C.

WHOLESALE DEALERS AND EXPORTERS OF HONEY

Clark, Ltd., J. Sutton, Mt. Vernon Ave., St. George, N.B.
Dalrymple & Sons, James, 594-598 St. Paul Street, Montreal, Que.
Flavelle Ltd., Lindsay, Ont.
Howard Mfg. Co., Ltd., Halifax, N.S.
Oswald, Wm. A., Petit Brule, Que.
Russell & Sons, W. G., Millbrook, Ont.
Rutherford, Marshall & Co., 68 Front St. E., Toronto, Ont.

WHOLESALE DEALERS AND EXPORTERS OF HORSES

Colne Farm Kennels, 112 St. James St., Montreal, Que.
Ernst & Son, J., Mahone Bay, N.S.
Gordon, Ironside & Fares, Co., Ltd., Winnipeg, Man.
Hadwen, G. H., Duncans, B.C.
Logan Bros., Amherst Pt., Cumberland Co., N.S.
Maple Creek, Town of, Sask.
O'Brien, Wm., Windsor, N.S.
O'Brien, Wm., Windsor, N.S.
Parham, Wm. G., Maritana, Huntingdon Co., Que.

WHOLESALE DEALERS AND EXPORTERS OF LARD

Burns & Co., Ltd., P., Vancouver, B.C.
Collingwood Packing Co., Ltd., Collingwood, Ont.
Dalrymple & Sons, James, 594-598 St. Paul St., Montreal, Que.
Davies Packing Co., Ltd., (The), Harriston, Ont.
Davies Co., Ltd., Wm., 521 Front St., E., Toronto, Ont.
Davis & Fraser, Halifax, N.S.
Duff & Son, John, Brant St., Hamilton, Ont.
Fearman Co., Ltd., F. W., 226 Rebecca St., Hamilton, Ont.
Freeman, The W. A. Co., Ltd., Hamilton, Ont.
Fowler's Canadian Co., Ltd., Hamilton, Ont.
Gordon, Ironside & Fares Co., Ltd., Logan Ave., W., Winnipeg, Man.
Gunns, Ltd., Toronto, Ont.
Gunn, Langlois & Co., Ltd., Montreal, Que.
Ingersoll Packing Co., Ltd. (The), Ingersoll, Ont.
Laing Packing & Provision Co., Ltd., Mill St., Montreal, Que.
Lawrason, S. F., & Company, London, Ont.
Metthews Co., Ltd. (The Geo.), Hull, Que.
Park, Blackwell Co., Ltd., cor. Front & Bathurst Sts., Toronto, Ont.
Rattray & Sons, Ltd., D., 28 St. Sulpice St., Montreal, Que.
St. Thomas Packing Co., Ltd., The, St. Thomas, Ont.
Swift Canadian Co., Ltd., Minnipeg, Man.
Tillsonburg Packing Co., The, Tillsonburg, Ont.
Western Packing Co., of Canada, Ltd., Winnipeg, Man.
Whyte Packing Co., Ltd., 37 William St., Montreal, Que.

WHOLESALE DEALERS AND EXPORTERS OF MAPLE SUGAR AND SYRUP

Brown, Jas. P., St. Chrysostome, Que.
Canada Maple Exchange, 618 Beaudry St., Montreal, Que.
Garret Safford Co. (The), Sutton, Que.
Hébert, D., Drummondville, East, Que.
Imperial Syrup Co. (The), 29 Vitre St. Wl., Montreal, Que.
MacDonald Bros., Granby, Que.
Maple Tree Producers Association Ltd., 58 Wellington St., Montreal, Que.
Rattray, D. & Sons, Ltd., 114 Dalhousie St., Quebec, Que.
Rose & Laflamme, Ltd., 400 St. Paul St., Montreal, Que.
Small Bros., Dunham, Que.

WHOLESALE DEALERS AND EXPORTERS OF MILK

Milk, Condensed.

Aylmer Condensed Milk Co., Ltd., 7 Main St., East, Hamilton, Ont.
Bordens' Condensed Milk Co., Tillsonburg, Ont.
Canadian Condensing Co., Ltd., Chesterville, Ont.
Charlottetown Condensed Milk Co., Ltd., Charlottetown, P.E.I.
Crescent Creamery Co., Ltd., Winnipeg, Man.
Dominion Canners, Ltd., 7 Main St. East, Hamilton, Ont.
Dunn, Wm. H., 396 St. Paul St., Montreal, Que.
Ewing, S. H. & Sons, Montreal, Que.
La Cie de Laiterie St. Laurent, 21-23 St. Peter St., Montreal, Que.
Malcolm, J., St. George, Ont.
Porter Worsnop & Co., 417 Winch Building, Vancouver, B.C.
Reindeer, Ltd., Truro, N.S.
St. Charles Condensing Co., Ingersoll, Ont.
St. George Condensery, St. George, Ont.
Worsnop, Porter, & Co., 417 Winch Bldg., Vancouver, B.C.

Milk, Evaporated.

Aylmer Condensed Milk Co., Ltd., 7 Main St. East, Hamilton, Ont.
Bordens' Condensed Milk Co., Tillsonburg, Ont.
Malcolm, J., St. George, Ont.
Reindeer, Limited, Truro, N.S.
St. Charles Condensing Co., Ingersoll, Ont.

Milk, Powdered.

Malcolm, J., St. George, Ont.

WHOLESALE DEALERS AND EXPORTERS OF OILS (Fish)

Leonard Bros., Montreal, Que.
Maritime Fish Corporation, Ltd., Montreal, Que.
Marquis, F., Canac, Quebec, Que.
Rattray, D. & Sons, Ltd., 28 St. Sulpice St., Montreal, Que.
Whitman, A. W., Halifax, N.S.

WHOLESALE DEALERS AND EXPORTERS OF PORK

Burns, P. & Co., Ltd., Calgary, Alta.
Collingwood Packing Co., Ltd., Collingwood, Ont.
Cormier, J. Arthur, St. Antoine, Vercheres Co., Que.
Crosby, A. B. & Co., Crosbys Wharf, Halifax, N.S.
Davies, The William, Co., Ltd., Toronto, Ont.
Davis & Fraser, Halifax, N.S.
Fearman, F.W. & Co., Ltd., Hamilton, Ont.
Fowler's Canadian Co., Ltd., Hamilton, Ont.
Gallagher-Hull Meat & Packing Co., Ltd., The, 226 Jasper St. E., Edmonton, Alta.
Gordon, Ironside & Fares Co., Ltd., Logan Avenue, Winnipeg, Man.
Gunn's, Ltd., Toronto, Ont.
Harris Abattoir Co., Ltd., (The), Western Market, Toronto, Ont.
Imperial Packing Co., Ltd., Woodstock, N.B.
Ingersoll Packing Co., Ltd., Ingersoll, Ont.
Matthews-Laing, Ltd., Montreal, Que.
Montreal Abattoirs, Ltd., Montreal, Que.
O'Keefe & Drew Abattoir Co., Ltd., Chatham, Ont.
Matthews, Geo., Ltd., Hull, Que.
Park, Blackwell Co., Ltd., cor. Front and Bathurst Sts., Toronto, Ont.
Prince Edward Island Hay & Produce Co., Great George St., Charlottetown, P.E.I.
Puddy Bros., Ltd., 60 Paton Road, Toronto, Ont.
Rattray, D. & Sons, Ltd., 28 St. Sulpice St., Montreal, Que.
Ryan, The Wm. Co., Ltd., 72 Front St., Toronto, Ont.
Smith, T. H. & Co., 70 Colborne St., Toronto, Ont.
St. Patrick's Institute, Grand River, Lot 14, P.E.I.
St. Thomas Packing Co., Ltd., The, St. Thomas, Ont.
Sussex Packing Co., Ltd., Sussex, N.B.
Swift Canadian Co., Ltd., Winnipeg, Man.
Western Packing Co. of Canada, Ltd., Winnipeg, Man.
Williams, F. E. Co., Ltd., Princess St. St. John, N.B.

WHOLESALE DEALERS AND EXPORTERS OF POTATOES

Apps, Wm. Co., Brantford, Ont.
Brandon Produce Co., Brandon, Man.
Brant Packing Association, Burford, Ont.
Chatham Fruit Growers' Assn., Ltd., Chatham, Ont.
Chouillou, C. A. & Co., 14 Place Royale, Montreal, Que.
Clements & Co., Ltd., St. John, N.B.
Collins, T. & Co., North Market, St. John, N.B.
Connors Bros., Blacks Harbour, N.B.
Cormier, J. Arthur, St. Antoine, Comte Vercheres, Que.
Dalrymple, Jas. & Sons, 594-598 St. Paul Street, Montreal, Que.
Daykin & Jackson, Armstrong, B.C.
DeWolf, T. A. S. & Son, 135 Upper Water St., Halifax, N.S.
Edgett, Grady Co., Ltd., Summerside, P.E.I.
Ernst, J. & Son, Mahone Bay, N.S.
Estevan Flour Mills, Estevan, Sask.
Fawcett, George A., Sackville, N.B.
Fraser, David, Federal Life Bldg., Hamilton, Ont.
Harrison, S. S., Campbellton, N.B.
Malcolm, Andrew, 29 & 30 South Wharf, St. John, N.B.
McCammon, T. J. 44 Main St., Moosejaw, Sask.
McLure, Wm., Pictou, N.S.
Milne & Glennie Co., Galt Ont.
Morneault, Phileas, Plourd, N.B.
Nase, P. & Son, Ltd., St. John, N.B.
O'Brien, Wm., Windsor, N.S.
Oppenheimer, Sol., 25 Pender St., Vancouver, B.C.
Paterson Bros., 516 Yates St., Victoria, B.C.
Perley, Solomon, Woodstock, N.B.
Pickels, F. W. Co. (The), Annapolis Royal, N.S.
Platts, Wm., Jr., Pelham Corners, Ont.
Poole & Thompson, Montague, P.E.I.
Porter, Manzer, Ltd., Perth, N.B.
Powers, Thos. R., Grand Forks, B.C.
Prime, L. C. Co., Ltd., West End, St. John, N.B.
Prince Edward Island Hay & Produce Co., St. George St., Charlottetown, P.E.I.
Robertson, Morris & Co., 913 Dominion Trust Bldg., Vancouver, B.C.
Robin, Jones & Whitman, Ltd., Halifax, N.S.
Silver, H. R., Ltd., 109 Upper Water St., Halifax, N.S.
Smith, A. C. & Co., 101-105 Union Street, West St. John, N. B.
Springer, N. S., Mill St., St. John, N.B.
St. John Produce Co., Ltd., St. John, N.B.
White & Co., Ltd., Front St., Toronto, Ont.
Williams, F. E. & Co., Ltd., Princess St., St. John, N.B.
Wood, M., & Sons, Ltd., Sackville, N.B.

WHOLESALE DEALERS AND EXPORTERS OF POULTRY

Adolph, M. I., Wallace, Ont.
Dalrymple & Sons, James, 594-598 St. Paul St., Montreal, Que.
Davies, Wm., Co., The, Ltd., 24 Queen St., W., Toronto, Ont.
Davies, Wm., Co., Ltd., 521 Front St. E., Toronto, Ont.
Dawson, H. W., 90 Colborne Street, Toronto, Ont.
Ernst, J. & Son, Mahone Bay, N.S.
Flavelle Ltd., Lindsay, Ont.
Gunn, Langlois Co., Ltd., 241 St. Paul St., Montreal, Que.
Hislop & Hunter, 117 King St., Montreal, Que.
Lambton Creamery Co., Ltd., Petrolia, Ont.
Mallon, M. P., 33 Jarvis St., Toronto, Ont.
McDonald, Walter R., Petrolia, Ont.
Pollard, Alex., Dutton, Ont.
Poole & Thompson, Montague, P.E.I.
Prince Edward Island Hay & Produce Co., Great George St., Charlottetown, P.E.I.
Reid, Peter, Chateauguay Basin, Que.
Sanderson, James A., Oxford Station, Ont.
Smith, T. H. & Co. (The), 70 Colborne St., Toronto, Ont.
Sprague, Mark, Belleville, Ont.
Warrington, J. H., Cornwall, Ont.
Warrington, G. D., 30 William St., Montreal, Que.
Wetaskiwin Produce Co., Brandon, Man.
Whyte Packing Co., Ltd., 37 William St., Montreal, Que.

WHOLESALE DEALERS AND EXPORTERS OF PRODUCE

Barry, John & Sons, 179 McGill St., Montreal, Que.
Betts, C. E., Renfrew, Ont.
Clements & Co., Ltd., St. John, N. B.
Crooks Co., Robt., of New York, 11 St. Sacrament St., Montrea, Quel.
Dodwell & Co., Ltd., Vancouver, B.C.
Edmonton Produce Co., Ltd., Edmonton, Alta.
Hebert, D., Drummondville East, Que.
Kelowna Farmers Exchange, Ltd., Kelowna, B.C.
Lamane, W. & Cie, 630 Atwater St., St. Henri de Montreal, Que.
Lemon Bros., Owen Sound, Ont.
McDonald, J. A., 524 Vernon St., Nelson, B.C.
McKenzie, Thos. W., Port Hammond, B.C.
Peters, C. H. & Sons, Ltd., Peters Wharf, St. John, N.B.
Rood, J. Foster Co., Ltd., Cooks Wharf, Halifax. N.S.
Rutherford Marshall & Co., 68 Front St., Toronto, Ont.
Shaffner, J. B. & Co., Halifax, N.S.
Smith, H. & Co., 70 Colborne St., Toronto, Ont.
St. John Produce Co., Ltd., St. John, N.B.
Walker, John H., Burlington, Ont.
Ward, Joseph & Co., 115 Youville Square, Montreal, Que.

WHOLESALE DEALERS AND EXPORTERS OF PULPWOOD

Allard, Ned., Courcelle, Que.
Allen, Thos. G., Dungannon, Ont.
Arthabaska Water & Power Co., Victoriaville, Que.
Auger & Son, Quebec, Que.
Beauceville Lumber Co., Beauceville, Que.
Brouillard, O., Carmel, Que.
Champoux, La Compagnie, Disraeli, Que.
Charlemagne & Lac Ouareau Lumber Co., Montreal, Que.
Couture, J. O. & Freres, Rimouski, Que.
Crockett, Thos., Riviere du Loup, Que.
Dalhousie Lumber Co., Ltd., Dalhousie, N.B.
Davison Lumber Co., Ltd., Bridgewater, N.S.
Dudswell Lumber Co., South Dudswell, Que.
East Canada Power & Pulp Co., Ltd., (The), Murray Bay, Que.
Eastern Townships Lumber Co., Ltd., Sherbrooke, Que.
Frazer, G. A., Fontenoy, Que.
Grand Pabos Lumber Co., Pabos Mills, Que.
Guelph Patent Cask Co., Ltd., Scotstown, Que.
Hebert, D., Drummondville East, Que.
Howard & Craig, Sherbrooke, Que.
Howell Co. (The), Ogilvie Bldg., Toronto, Ont.
Kenney & Keddy, Hemmingford, Que.
Laurentian Lumber Co., 207-208 Board of Trade, Montreal, Que.
Lotbiniere Lumber Co. (The), Lyster, Que.
McDonald Bros, Granby, Que.
Miramichi Lumber Co., Chatham, N.B.
Montmorency Lumber Co., Montmorency Falls, Que.
Mulholland & Co., 34 Victoria St., Toronto, Ont.
Murray Bay Lumber & Pulp Co., Ltd., Murray Bay, Que.
Oyamel Co., Quebec, Que.
Partington, The Edward, Pulp & Paper Co., Ltd., St. John, N.B.
Price Bros. & Co., Ltd., 56 St. Peter St., Quebec, Que.
Prouty & Miller, St. Victor Station, Que.
Richardson, James, Co., Ltd., Matane, Que.
River Ouelle Pulp & Lumber Co., St. Pacome, Que.
Savoie & Cie, Manseau, Que.
Sharples, W. & J., 56 St. Peter St., Quebec, Que.
Soucy, F. F., Old Lake Road, Que.
Spanish River Pulp & Paper Mills, Ltd., Toronto, Ont.
The Tourville Lumber Mills Co., 107 St. James St., Montreal, Que.
Turgeon, N. T. & Co., Beauceville, Que.
Walley, N. N., Sherbrooke, Que.

WHOLESALE DEALERS AND EXPORTERS OF SEEDS

Allan Seed Co., John H., Pictou, Ont.
Dery, Hector L., 21 Jacques Cartier Square, Montreal, Que.
Edmonds, E., Simcoe, Ont.
Gould, Harvey J., Uxbridge, Ont.
Hume, John, Port Hope, Ont.
Lucas, James, Port Perry, Ont.
Nase & Son, Ltd., P., St. John, N.B.
Niles, W. P., Wellington, Ont.
Pollard, Alex., Dutton, Ont.
Rennie Co., Ltd., Wm., 136 Adelaide St. E., Toronto, Ont.
Steele, Briggs, Seed Co., Ltd., 105-107 Front St. East, Toronto, Ont.
Trumm, Wm. H., Homer, Ont.
Ward & Co., Joseph, 115 Place Youville, Montreal, Que.
Western Ontario Flour Mills, Tupperville, Ont

WHOLESALE DEALERS AND EXPORTERS OF WOOL

Appleby & Dally, Cobourg, Ont.
Boyd, Brumell Co., Ltd., 11 Wellington St., Toronto, Ont.
Calvert & Dwyer Co., Ltd. (The), 117 Wellington St. W., Toronto, Ont.
Carter, E. T. & Co., 83 Front St. E., Toronto, Ont.
Cram & Son, John F., Carleton Place, Ont.
Fickler, M. & Co., 827 St. Catherine St., Maisonneuve, Montreal, Que.
Guest, W. H., 1-7 Laing St., Toronto, Ont.
Hallam, John, 111 E. Front St., Toronto, Ont.
Harris Abattoir Co., Ltd., (The). Western Cattle Market Toronto, Ont.
Jackson, G. & H., Egmondville, Ont.
Kimble, John & Son, 1-15 Kimble St., St. John, N.B.
Labrecque, Francis, 505-509 St. Valier St., Quebec, Que.
Leadlay, E. & Co., 87 Front St., Toronto, Ont.
Lefebvre, Jules & Fils, St. Johns, Que.
Lightcap Hide & Fur Co., Ltd., Winnipeg, Man.
Pollard, Alex., Dutton, Ont.
St. John Hide Co., St. John, N.B.
Stone, Wm., Sons & Co., Ltd., Brantford, Ont.
Stringer, J. B. & Co., Chatham, Ont.

Chapter VI.

INSTITUTIONS NECESSARY TO THE BUSINESS INTERESTS OF CANADA

BANKS

There are 22 chartered banks in Canada with 3,087 branches in Canada, 14 in the United States, 8 in England, 1 in France, 22 in Newfoundland, 1 in Mexico, 46 in the West Indian Islands, 1 in British Guiana and 1 in Costa Rica.

The following figures are taken from the Bank Statement issued by the Dominion Government for the month ending December 31st, 1915:

Name of Bank	Capital Paid Up	Rate % of last div. decl'd	Total Assets	T'l Liabilit's	Notes in Circulation	Deposits	Current Loans and Discounts in Canada
	$		$	$	$	$	$
Bank of Montreal.....	16,000,000	10	334,031,153	299,443,550	17,301,542	201,184,474	95,793,276
Can. Bank of Com'ce..	15,000,000	10	250,581,706	221,181,468	16,109,007	163,836,210	141,054,597
Royal Bank..........	11,560,000	12	202,129,678	176,960,079	14,436,916	119,578,217	89,158,149
Bank of Nova Scotia...	6,500,000	14	104,244,467	85,348,352	7,154,415	62,868,126	47,166,798
Merchants Bank......	7,000,000	10	95,949,000	81,176,886	7,847,805	65,856,557	52,117,558
Union Bank..........	5,000,000	8	89,788,582	81,073,924	7,309,074	63,563,814	50,414,786
Dominion Bank.......	6,000,000	12	87,475,126	73,949,637	4,995,666	64,043,811	53,026,825
Imperial Bank........	7,000,000	12	83,812,252	68,547,122	6,102,947	59,808,885	42,129,410
Bank of Toronto......	5,000,000	11	67,235,277	55,486,035	5,046,623	49,445,053	43,079,690
Bank of Brit. N. Am...	4,866,666	8	63,407,469	54,111,087	4,674,092	38,482,405	21,956,614
Molsons Bank........	4,000,000	11	55,212,341	45,984,330	3,986,970	40,390,243	36,222,374
Bank of Ottawa.......	4,000,000	12	55,118,577	46,086,154	3,859,590	40,043,484	27,449,500
Standard Bank.......	3,000,000	13	52,421,702	44,893,157	3,574,518	39,857,692	35,627,176
Bank of Hamilton.....	3,000,000	12	48,826,336	42,279,528	3,324,600	37,604,784	31,173,729
Banque d'Hochelaga...	4,000,000	9	34,630,476	26,686,997	3,445,662	22,610,309	23,494,964
Banque Nationale.....	2,000,000	8	27,783,347	23,701,325	3,058,385	18,938,800	19,377,358
Quebec Bank.........	2,730,000	7	21,798,133	17,964,828	2,331,963	13,102,591	14,936,953
Northern Crown Bank.	2,862,400	6	20,279,690	17,197,271	3,062,709	13,226,249	8,907,399
Home Bank..........	2,000,000	5	16,196,263	13,834,097	2,072,255	10,123,982	12,309,567
Banque Provinciale....	1,000,000	7	14,369,491	12,703,453	1,090,258	10,347,819	7,356,045
Sterling Bank....	1,204,820	6	10,523,349	8,942,681	1,108,415	7,397,649	6,178,066
Weyburn Security Bank	316,100	5	2,177,820	1,731,729	306,170	1,369,607	815,268
TOTAL...........	113,987,577		1,737,992,244	1,499,283,690	122,199,582	1,144,680,651	859,746,102

The active management at the head offices and the number of Branches of each of these banks are as follows:

Bank of British North America.

Head Office in Canada, Montreal, Que.
General Manager, H. B. MacKenzie, Montreal.
Superintendent of Branches, James Anderson, Montreal.
Superintendent of Eastern Branches, H. A. Harvey, Montreal.
Superintendent of Central Branches, J. McEachern, Winnipeg.
Chief Inspector, O. R. Rowley, Montreal.
Inspector of Branch Returns, A. S. Hall, Montreal.
Inspector, J. H. Gillard, Montreal.
Inspector, N. V. R. Huus, Montreal.
Assistant Inspector, B. C. Gardner, Winnipeg.
Assistant Inspector, H. R. Powell, Montreal.

The parent office of this Bank is in London, England. It has 89 Branches in Canada and 2 in the United States. (See advt. in *The Journal of Commerce*).

Canadian Bank of Commerce.

Head Office, Toronto, Ont.
President, Sir Edmund Walker, C.V.O., LL.D., D.C.L., Toronto.
General Manager, John Aird, Toronto.
Assistant General Manager, H. V. F. Jones, Toronto.
Manager in Chief, Eastern Townships Division, Jas. Mackinnon, Sherbrooke.
Superintendent of Branches, A. H. Ireland, Toronto.
Superintendent of Pacific Coast Branches, H. H. Morris, Vancouver.
Superintendent of Central Western Branches, V. C. Brown, Winnipeg.
Chief Inspector, R. A. Rumsey, Toronto.
Acting Inspector, E. L. Stewart Patterson, Toronto.
Inspector, W. Hogg, Vancouver.
Inspector, W. Spier, Sherbrooke.
Inspector, F. B. Francis, Winnipeg.
Inspector, C. L. Foster, Toronto.
Inspector, J. B. Corbet, Winnipeg.
Inspector, F. M. Gibson, Winnipeg.
Assistant Inspector, G. G. Laird, Toronto.
Assistant Inspector, E. C. Grundy, Toronto.
Assistant Inspector, E. E. Henderson, Winnipeg.
Assistant Inspector, B. P. Alley, Winnipeg.
Assistant Inspector, G. F. Parton, Toronto.
Assistant Inspector, D. B. Falkner, Vancouver.
Assistant Inspector, W. P. Rapley, Sherbrooke.
Supervisor of Banking Accounts and Exchanges, T. F. Aspden, Toronto.
Secretary, A. St. L. Trigge, Toronto.

Canadian Bank of Commerce has 371 Branches in Canada; 4 in the United States; 1 in London, Eng.; 1 in Newfoundland; and 1 in Mexico. (See advt. in *The Journal of Commerce*).

Dominion Bank (The)

Head Office, Toronto, Ont.
President, Sir Edmund B. Osler, M.P., Toronto.
General Manager, C. A. Bogert, Toronto.
Assistant to the General Manager, A. Pepler, Toronto.
Assistant to the General Manager, E. A. Begg, Toronto.
Eastern Inspector, W. Wily, Toronto.
Assistant Inspector, J. M. Jellett, Toronto.
Assistant Inspector, C. S. Pim, Toronto.
Secretary, E. H. Baines, Toronto.
Superintendent of Western Branches, F. L. Patton, Winnipeg.
Acting Western Inspector, R. C. Paton, Winnipeg.

Dominion Bank has 90 Branches in Canada and 1 in London, Eng., (See advt. in *The Journal of Commerce*).

Bank of Hamilton.

Head Office, Hamilton, Ont.
President, Sir John S. Hendrie, K.C.M.G., Hamilton.
Vice-President, Cyrus A. Birge. Hamilton.
General Manager, J. P. Bell, Hamilton.
Assistant to the General Manager, J. S. Gordon, Hamil'n.

The Bank of Hamilton has 121 Branches in Canada. (See advt. in *The Journal of Commerce*).

Bank D'Hochelaga.

Head Office, Montreal, Que.
President, J. A. Vaillancourt, Montreal.
General Manager, Beaudry Leman, Montreal.
Chief Inspector, Yvon Lamarre, Montreal.
Controller, J. Chas. Thivierge, Montreal.
Chief Accountant, G. Warburton Cox, Montreal.
Manager Montreal Office, F. G. Leduc, Montreal.
Assistant Manager, P. A. Lavallee, Montreal.

The Bank of Hochelaga has 145 Branches in Canada.

Home Bank of Canada (The)

Head Office, Toronto, Ont.
President, Col. the Hon. James Mason, Toronto.
Vice-President, Thomas Flynn, Toronto.
General Manager, Col. the Hon. James Mason, Toronto.

The Home Bank of Canada has 46 Branches in Canada (See advt. in *The Journal of Commerce*).

Imperial Bank of Canada.

Head Office, Toronto, Ont.
President, Peleg Howland, Toronto.
Vice-President, Elias Rogers, Toronto.
General Manager, E. Hay, Toronto.
Assistant General Manager, W. Moffat, Toronto.
Chief Inspector, G. D. Boulton, Toronto.
Western Superintendent, A. E. Phipps, Calgary.
Inspector, R. S. Clark, Toronto.
Inspector, H. T. Jaffray, Winnipeg.
Secretary, W. G. More, Toronto.

Imperial Bank has 124 Branches in Canada (see advt. in *The Journal of Commerce*).

Merchants Bank of Canada.

Head Office, Montreal, Que.
General Manager, E. F. Hebden, Montreal.
Superintendent of Branches and Chief Inspector, T. E. Merrett, Montreal.
Superintendent of Manitoba and Saskatchewan Branch, G. Munro, Winnipeg.
Secretary, J. M. Kilbourn, Montreal.
Inspector, W. A. Meldrum, Montreal.
Inspector, W. J. Finncan, London.
Inspector, C. E. Barthe, Edmonton.
Inspector, F. X. Hahn, Winnipeg.

Merchants Bank has 206 Branches in Canada and 1 in United States.

Molsons Bank (The)

Head Office, Montreal, Que.
General Manager, Edward C. Pratt, Montreal.
Superintendent of Branches, E. W. Waud, Montreal.
Inspector, H. A. Harries, Montreal.
Assistant Inspector, T. Carlisle, Montreal.
Inspector of Western Branches, T. Beresford Phepoe, Vancouver.

Molsons Bank has 46 Branches in Canada. (See advt. in *The Journal of Commerce*).

Bank of Montreal.

Head Office, Montreal, Que.
President, H. V. Meredith, Montreal.
General Manager, Sir Frederick Williams-Taylor, LL.D., Montreal.
Assistant General Manager, A. D. Braithwaite, Montreal.
Superintendent British Columbia Branches, C. Sweeny, Vancouver.
Superintendent Quebec Branches, F. J. Cockburn, Montreal.
Superintendent North-West Branches, E. P. Winslow, Winnipeg.
Superintendent Maritime Provinces & Newfoundland Branches, D. R. Clarke, Halifax.

The Bank of Montreal has 169 Branches in Canada; 3 in the United States; 2 in England; and 3 in Newfoundland. (See advt. in *The Journal of Commerce*).

La Banque Nationale

Head Office, Quebec, Que.
President, R. Audette, Quebec.
Vice-President, Hon. Justice A. Chauveau, Quebec.
General Manager, N. Lavoie, Quebec.
Secretary of the Board, P. Lafrance, Quebec.
Chief Inspector, Jos. S. Blais, Quebec.
Inspector, St.-Geo. Morency, Quebec.
Assistant-Inspector, Roland Dion, Quebec.

The Banque Nationale has 203 Branches in Canada and 1 in Paris, France.

Northern Crown Bank.

Head Office, Winnipeg, Man.
General Manager, R. Campbell, Winnipeg.
Superintendent of Eastern Branches, V. F. Cronyn, Toronto.
Superintendent of British Columbia Branches, J. P. Roberts, Vancouver.

The Northern Crown Bank has 106 Branches in Canada.

Bank of Nova Scotia.

Head Office, Halifax, N.S.
General Manager's Office, Toronto, Ont.
General Manager, H. A. Richardson, Toronto.
Assistant General Manager, D. Waters, Toronto.
Chief Superintendent of Branches, J. A. McLeod, Toronto
Superintendent of Maritime Province Branches, E. Crockett, Toronto.
Superintendent of Ontario and Quebec Branches, C. D. Schurman, Toronto.
Superintendent of Western Branches, H. D. Burns, Toronto.
Inspector, G. MacIntyre, Toronto.

The Bank of Nova Scotia has 159 Branches in Canada; 3 in United States; 14 in Newfoundland; and 10 in the West Indies. (See advt. in *The Journal of Commerce*).

Bank of Ottawa.

Head Office, Ottawa, Ont.
General Manager, George Burn, Ottawa,
Assistant General Manager, D. M. Finnie, Ottawa.
Chief Inspector, Wm. Duthie, Ottawa.
Western Inspector, J. H. Neeve, Ottawa.
Inspector, P. W. Murphy, Ottawa.
Inspector, F. V. Massey, Ottawa.
Chief Accountant, C. F. Edwards, Ottawa.

The Bank of Ottawa has 95 Branches in Canada. (See advt. in *The Journal of Commerce*).

Banque Provinciale du Canada.

Head Office, Montreal, Que.
President, H. Laporte, Montreal.
Vice-President, W. F. Carsley, Montreal.
Vice-President and General Manager, Tancrede Bienvenu, Montreal.
Inspector, M. Larose, Montreal.
Inspector, J. A. Turcot, Montreal.
Secretary, A. Giroux, Montreal.
Chief Accountant, J. R. Choquet, Montreal.
Assistant Chief Accountant, L. Laporte, Montreal.

The Banque Provinciale du Canada has 75 Branches in Canada.

Quebec Bank (The)

Head Office, Quebec, Que.
General Manager's Office, Montreal, Que.
General Manager, B. B. Stevenson, Montreal.
Superintendent of Branches, Reginald C. Patton, Montreal.
Inspector of Eastern Branches, R. L. Young Jones, Montreal.
Inspector of Western Branches, W. H. Clarke, Calgary.
Chief Accountant, A. W Brown, Montreal.

The Quebec Bank has 57 Branches in Canada.

Royal Bank of Canada (The)

Head Office, Montreal, Que.
Managing Director, Edson L. Pease.
General Manager, C. E. Neill, Montreal.
Assistant General Manager, F. J. Sherman, Montreal.
Superintendent of Branches, W. B. Torrance, Montreal.
Supervisor of Branches in British Columbia, C. A. Crosbie, Vancouver.
Supervisor of Ontario Branches, Stuart Strathy, Toronto.
Supervisor of Central Western Branches, N. Hillary, Winnipeg.
Supervisor of Maritime Province Branches, A. D. McRae, Halifax.
Acting Supervisor of Branches in Cuba, T. F. Dever, Havana.
Inspector, M. W. Wilson, Montreal.
Inspector, W. C. Harvey, Halifax.
Inspector, A. R. Heiter, Winnipeg.
Inspector, J. W. Cameron, Calgary.
Inspector, H. K. Wright, Vancouver.

The Royal Bank of Canada has 322 Branches in Canada; 1 in United States; 1 in England; 3 in Newfoundland; 36 in West Indies; 1 in British Handuras; 3 in British Guiana; and 1 in Costa Rica. (See advt. in *The Journal of Commerce*).

Standard Bank of Canada.

Head Office, Toronto, Ont.
General Manager, George P. Scholfield, Toronto.
Assistant General Manager, John S. London, Toronto.
Chief Inspector, E. A. Bog, Toronto.
Inspector, A. A. Drummond, Toronto.
Inspector, J. Phillips, Toronto.
Inspector, F. H. Gray, Toronto.
Manager Foreign Department, N. C. Stephens, Toronto.
Inspector of Branch Returns, G. N. Brown.

The Standard Bank of Canada has 121 Branches in Canada. (See advt. in *The Journal of Commerce*).

Sterling Bank of Canada.

Head Office, Toronto, Ont.
General Manager, A. H. Walker, Toronto.
Superintendent of Branches, F. H. Marsh, Toronto.

The Sterling Bank of Canada has 49 Branches in Canada.

Bank of Toronto.

Head Office, Toronto, Ont.
President, D. Coulson, Toronto.
General Manager, Thos. F. How, Toronto.
Superintendent of Branches, John R. Lamb, Toronto.
Chief Inspector, T. A. Bird, Toronto.

The Bank of Toronto has 114 Branches in Canada.

Union Bank of Canada.

Head Office, Winnipeg, Man.
General Manager, G. H. Balfour, Winnipeg.
Assistant General Manager, H. B. Shaw, Winnipeg.
Superintendent of Branches and Chief Inspector, F. W. S. Crispo, Winnipeg.
Eastern Superintendent, J. W. Hamilton, Toronto.
Superintendent Manitoba Branches, F. W. Smith, Winnipeg.
Superintendent Saskatchewan Branches, J. S. Hiam, Winnipeg.
Superintendent Alberta Branches, R. H. Baird, Winnipeg
Superintendent British Columbia Branches, P. Vibert, Vancouver.
Supervisor Eastern Branches, B. B. Carter, Toronto.
Inspector Northern Saskatchewan Branches, G. A. Campbell, Saskatoon.
Inspector Southern Saskatchewan Branches, O. F. Seeber, Regina.
Inspector Alberta Branches, G. S. Orde, Calgary.
Inspector Manitoba Branches, A. H. Sutherland, Winnipeg.
Assistant Inspector, W. M. Chandler, Winnipeg.
Assistant Inspector, J. G. Geddes, Toronto.
Assistant Inspector, E. M. Dawson, Toronto.
Ass. Insp. A. P. Nasmith, Toronto.
Ass. Insp. E. D. McGregor, Calgary.
Chief Accountant, H. Veasey, Winnipeg.

The Union Bank of Canada has 315 Branches in Canada and 2 in England.

Weyburn Security Bank.

Commenced business January 3rd, 1911.
Head Office, Weyburn, Sask.
General Manager, H. O. Powell, Weyburn, Sask.

The Weyburn Security Bank has 14 Branches in Canada.

TRUST COMPANIES

British American Trust Co., Vancouver, B.C.
General Manager, W. L. Germaine.
Canadian Financial Trust Co., Vancouver, B.C.
General Manager, P. Donnelly.
Canadian, Guaranty Trust Co., Brandon, Man.
Managing Director, John R. Little.
Capital Trust Co., Ottawa, Ont.
Managing Director, B. G. Connolly.
Crown Trust Co., Montreal, Que.
Manager, I. P. Rexford.
Eastern Trust Co., Halifax, N.S.
General Manager, B. A. Weston.
Fidelity Trust Co., Winnipeg, Man.
Secretary-Treasurer, R. S. Ewing.
Imperial Canadian Trust Co., Winnipeg, Man.
Managing Director, W. T. Alexander.
Imperial Trust Co., of Canada, Toronto, Ont.
Manager, W. H. Jackson.
Mercantile Trust Co. of Canada, Hamilton, Ont.
Manager, S. C. Macdonald.
Montreal Trust Co., Montreal, Que.
Manager, V. J. Hughes.
National Finance Co., Vancouver, B.C.
General Manager, H. C. Gordon.
National Trust Co., Limited, Toronto, Ont.
General Manager, W. E. Rundle.
Northern Trust Co., Winnipeg, Man.
Managing Director, P. T. Rieley.
Prudential Trust Co., Montreal, Que.
President and Managing Director, B. Hal. Brown.
(See advt. in *The Journal of Commerce*).
Royal Securities Corporation, Montreal. Que.
General Manager, A. R. Doble.
Royal Trust Co., Montreal, Que.
Manager, A. E. Holt.
Saskatchewan Mortgage and Trust Corp., Regina, Sask.
Manager and Secretary, C. V. Smith.
Sterling Trust Corporation, Toronto, Ont.
Managing Director, H. Waddington.
Toronto General Trusts Corporation, Toronto, Ont.
General Manager, A. D. Langmuir.
Traders Trust Co., Winnipeg, Man.
Secretary, J. W. Campbell.
Trust & Guarantee Co., Toronto, Ont.
General Manager, E. B. Stockdale.
Trust & Loan Co. of Canada, London, England.
Chief Commissioner for Canada, Col. L. Edye, Montreal, Que.
Union Trust Co., Toronto, Ont.
General Manager, J. M. McWhinney.
Western Trust Co., Winnipeg, Man.
Secretary, Jas. B. Smith.

STOCK AND BOND BROKERS

STOCK AND BOND BROKERS WHO ARE MEMBERS OF THE MONTREAL STOCK EXCHANGE. ADDRESS OF EACH FIRM: MONTREAL, QUE.

FIRM NAME.	MEMBERS OF FIRM.
Beaubien & Co., L. G.	L. G. Beaubien, C. H. Branchaud, A. Stewart McNichols.
Bruneau & Dupuis	Arthur Bruneau.
Burnett & Co.	G. H. Smithers, J. J. M. Pangman, Geo. W. S. Henderson.
Burnett, Porteous & Co.	B. Hazen Porteous, Hugh Burnett.
Carsley & Co., S.	S. Carsley, J. G. Carsley.
Craig & Luther	J. P. Craig, W. E. J. Luther.
Davidson & Co., Thornton	H. G. Davidson, L. A. Wyse.
Dunlop & Sons, G. C.	Alan C. Dunlop, G. C. Dunlop, Ansley G. Dunlop.
Edgar & Co., L. Lorne	L. Lorne Edgar.
Ekers & Cushing	H. Austin Ekers, G. C. Cushing.
Fairbanks Bros.	F. C. Fairbanks, G. W. Fairbanks.
Farrell, Seely & Co.	D. B. Seely.
Fenwick & Ryan	A. G. Fenwick, J. Raymond Ryan.
Forget & Co., L. J.	T. W. McAnulty.
Forget, R.	Rodolphe Forget.
Fortier, Beauvais & Co.	Leopold M. Fortier, A. E. Beauvais.
Garland & Co., C. Simpson	C. Simpson Garland, Chester W. Root, Victor C. Buchanan.
Gault, C. E.	C. E. Gault.
Gillett & Strachan	R. C. Gillett, W. B. Strachan.
Greenshields & Co.	J. G. Greenshields, M. Greenshields, R. O. Johnson, R. D. Bell.
Hamilton & Co., G. W.	Thos. McCallum.
Hansons & Ferguson	E. Hanson, W. Hanson, A. J. Ferguson.
Hodgson & Co., C. J.	C. J. Hodgson, Angus W. Hodgson.
Lewis, C. H.	C. H. Lewis.
MacDougall Bros.	E. R. D. Applegath, H. S. MacDougall, H. L. MacDougall.
Mackintosh & Co., J. C.	J. C. Mackintosh, A. F. Mackintosh, S. A. Heward, John E. Wood.
McCuaig Bros. & Co.	G. Eric McCuaig, Clarence J. McCuaig, D. Rykert McCuaig, Grant Johnston.
McCuaig & Co., Colin M.	Colin M. McCuaig, J. Stuart McCuaig.
McCurdy & Co., F. B.	F. B. McCurdy, Alfred Bowser, John R. Macleod, R. H. Metzler.
McDougall & Cowans	P. McDougall, P. P. Cowans, Russell Cowans, Alex. E. Christmas.
McGibbon & MacDougall	S. R. McGibbon, R. E. MacDougall.
Marler & Co., J. L.	Woodward Marler, Leslie Marler.
Meredith & Co., C.	Chas. Meredith, H. B. MacDougall, D. E. Crutchlow, A. T. Shaughnessy, J. J. Reed.
Moat & Co., R.	W. R. Miller, D. C. S. Miller, John H. Wallace.
Molson & Robin	Kenneth Molson, C. B. Robin.
Nash & Co., F.	F. Creighton Nash, Guy D. C. Dobbin.
O'Brien & Williams	W. P. O'Brien, M. E. Williams.
Oswald Bros.	M. C. Oswald, F. F. Archbald.
Paterson & Co., Alex.	Alex. Paterson, Elwood B. Hosmer, Harold J. Lawrence.
Pitblado & Co., J.	John Pitblado, H. J. Child.
Redpath & Co.	J. H. Redpath.
Rex & Co., A. E.	A. E. Rex.
Riddell & Co., A. F.	A. F. Riddell, J. A. Riddell, A. C. Stead, Hugh Mathewson.
Robinson & Sons, J. M.	John M. Robinson, H. Beverley Robinson, Robert H. Reid.
Schofield, K. R.	K. R. Schofield.
Shephard & Mackenzie	E. G. Shepherd, Philip Mackenzie.
Scott & Co., H. C.	Hope Scott, Gordon B. Forsyth, Geo. W. Gardner.
Smith & Co., Edgar	Edgar M. Smith.
Strathy & Co., Gordon	H. Gordon Strathy, George H. Reeves.
Stephens & Co., F. C.	F. Chattan Stephens.
Taylor, J. P.	J. P. Taylor.
Turpin & Co., W. J.	W. J. Turpin. G. H. Turpin.
Tousaw, Hart & Anderson	Chas. R. Tousaw, Vivian S. Hart, J. Morley Anderson.
Weir, F. H.	F. H. Weir.
Wilson & Co., A. A.	Andrew A. Wilson.

STOCK AND BOND BROKERS.—Continued

STOCK AND BOND BROKERS WHO ARE MEMBERS OF THE TORONTO STOCK EXCHANGE. ADDRESS OF EACH FIRM: TORONTO, ONT.

FIRM NAME.	MEMBERS OF FIRM
Ames & Co., A. E.	A. E. Ames, H. R. Tudhope, ~~T. Bradshaw~~, F. J. Coombs. C. E. Abbs.
Anderson & Co., T. O.	T. O. Anderson, G. Moray Anderson, T. W. Anderson.
Baillie & Co., Jas. W.	James W. Baillie.
Baillie, Wood & Croft	Frank W. Bailie, Frank P. Wood, John Croft.
Blaikie & Co., Geo. W.	Geo W. Blaikie.
Bongard, Ryerson & Co.	R. R. Bongard, Y. S. Ryerson.
Brent, Tovell & Co.	Wm. C. Brent, Norman W. Tovell.
Brouse, Mitchell & Co.	W. H. Brouse, G. G. Mitchell, T. R. Boys, E. G. Wills.
Buchanan, Seagram & Co.	J. O. Buchanan, Norman Seagram.
Burritt & Co., A. P.	A. P. Burritt, H. H. McKee.
Cassels & Biggar	D. S. Cassels, George C. Biggar.
Cassels, Son & Co.	W. Gibson Cassels, Sydney W. Smith.
Cronyn & Co., Edward	Edward Cronyn.
Deacon & Co., F. H.	F. H. Deacon, J. C. Fraser.
Doherty, W. K.	W. K. Doherty,
Duncanson, How & Co.	A. E. Duncanson, Dickson D. How.
Dyment, Cassels & Co.	A. E. Dyment, Robt. Cassels, W. G. H. Browne.
Fergusson & Co., G. Tower	G. Tower Fergusson, J. Leslie Ferguson, A. T. Fergusson.
Fletcher, Macfarlane & Co.	Grant Fletcher, Stuart Macfarlane.
Heron & Co.	Orlando Heron, C. J. Forlong.
Jarvis & Co., Æmilius	Æmilius Jarvis, A. D. Morrow.
Jarvis, W. D. P.	W. D. P. Jarvis (Deceased).
Lawson & Co., E. E.	Edward E. Lawson.
Lyon & Plummer	R. A. Lyon, H. L. Plummer.
Macdonald & Co., J. Gordon	J. Gordon Macdonald, S. Temple Blackwood.
Martens & Co., A. H.	A. H. Martens, W. W. Baldwin.
Mitchell & Co., W. G.	W. G. Mitchell, G. D. E. Lamont.
Morris & Wright	R. S. Morris, E. V. Wright.
Mulock & Co., Cowthra	Cawthra Mulock, E. H. Laschinger, Malcolm Stoble.
Niven & Co., J. K.	J. K. Niven.
O'Flynn, H. H.	H. H. O'Flynn.
O'Hara & Co., H.	H. O'Hara, S. B. O'Hara.
Osbourne, J. Ewart	J. Ewart Osborne,
Osler & Hammond	Sir Edmund B. Osler, F. G. Osler, G. T. Chisholm, H. F. Marriott, H. Franks.
Osler & Co., A. E.	A. E. Osler, Gordon Taylor, Charles Wurtele,
Pardoe & Co., Avern	Avern Pardoe, jr., J. E. L. Pangman.
Pellatt & Pellatt	Sir Henry M. Pellatt, K.B., C.V.O.; Norman Macrae, Reginald Pellatt.
Perry & Co., Norman D.	Norman D. Perry.
Playfair, Paterson & Co.	Stuart B. Playfair, P. L. Paterson.
Stark & Co., John	Edward B. Freeland, Charles T. Stark, Harry L. Stark.
Stewart, Fred. J.	Fred. J. Stewart.
Tomenson, Forwood & Co.	T. W. Forwood, J. S. Tomenson, H. M. S. McCoy.
Watt & Watt	T. C. Edgar Watt, E. H. Watt.

STOCK AND BOND BROKERS WHO ARE MEMBERS OF THE WINNIPEG STOCK EXCHANGE. ADDRESS OF EACH FIRM: WINNIPEG, MAN.

R. H. Agur, Summerland, B.C.
Montague Aldous, 502 Trust & Loan Building.
H. H. Beck, Anglo-American Fire Ins. Co., Toronto.
T. R. Billett, 505 Merchants' Bank Bldg.
J. E. Botterell, of Baird & Botterell.
A. P. Cameron, Winnipeg.
H. T. Champion, of Alloway & Champion, Limited.
W. J. Christie, of W. J. Christie & Co.
S. P. Clark, of Clark & Martin.
E. M. Counsell, 309 McGreevy Bldg.
G. R. Crowe, British Empire Grain Co.
M. J. A. M. De la Giclais, of De la Giclais & Co.
H. S. Edwards, of H. S. Edwards & Co.
W. Sanford Evans, of Ottawa, Ont.
W. H. Gardner, of Oldfield, Kirby & Gardner.
J. T. Gordon, of Gordon, Ironside & Fares.
Cecil S. Gunn, of C. S. Gunn & Co.
E. E. Hall, of the Dom. Investment & Securities Co., Ltd.
F. W. Heubach, of Heubach, Finkelstein & Heubach.
W. T. Kirby, of Oldfield, Kirby, & Gardner.
R. Lawson, 402 Merchants' Bank Building.
J. J. Lenfesty, Winnipeg.
Chas. E. Lewis, 413 Chambers of Com., Minneapolis.
D. H. McDonald, Fort Qu'Appelle, Sask.
J. C. McGavin, of Savage & McGavin.
N. T. MacMillan, of N. T. MacMillan & Co.
A. M. Nanton, of Osler, Hammond & Nanton.
Geo. A. Metcalfe, Union Bank Bldg.
H. F. Osler, of Osler, Hammond & Nanton.
R. R. Patinson, of Winnipeg.
R. T. Riley, Northern Trust Co.
W. P. Rodgers, 608 McIntyre Block.
R. G. Rogers, of R. Lawson & Co.
Hugo Ross, of the Hugo Ross Realty Co., Limited.
F. H. Stewart, 100 Sterling Bank Bldg.
Hugh Sutherland, of the Canadian Northern Ry.
B. K. Thomson, of B. K. Thomson & Co., Nanton Blk.
T. Harry Webb, of Webb, Read, Hegan, & Callingham
A. Wickson, 801 Somerset Block.

LIFE INSURANCE COMPANIES DOING BUSINESS IN CANADA

NAME OF COMPANY		Total Insurance in force Dec. 31st, 1914	New Insurance Written 1914	Total Premiums Receipts 1914	Total Expenses 1914	Percentage of Expenses to Premium Receipts 1914
CANADIAN COMPANIES:						
Mutual Life Ass. Co. of Canada	1869	$ 94,477,359	$ 14,915,879	$ 3,270,790	$ 770,981	23.5%
Canada Life Assurance Co.	1847	157,407,171	15,436,988	4,825,260	1,222,547	25.3%
Sun Life Assurance Co. of Canada	1865	218,299,835	38,541,305	8,912,755	2,406,443	26.9%
North American Life Assurance Co.	1881	54,326,926	7,854,049	1,848,674	511,570	27.6%
Manufacturers' Life Insurance Co.	1887	80,610,684	15,428,859	3,149,480	969,767	30.3%
Imperial Life Ass. Co. of Canada	1897	45,794,225	8,306,886	1,590,712	504,518	31.7%
Confederation Life Association	1871	70,464,955	11,703,565	2,496,991	806,395	32.3%
London Life Insurance Co	1874	17,401,425	4,717,143	599,010	193,535	32.3%
Equity Life Ass. Co. of Canada	1904	2,497,083	310,051	67,303	21,679	32.2%
Dominion Life Assurance Co.	1889	16,624,584	2,749,903	484,694	163,742	33.7%
Great-West Life Assurance Co.	1892	108,221,932	26,416,874	3,226,978	1,103,820	34.2%
Northern Life Ass. Co. of Canada	1897	10,393,268	2,142,869	370,839	134,529	36.2%
La Sauvegarde Life Assurance Co.	1903	6,160,862	1,245,166	207,471	78,845	38.0%
Crown Life Insurance Co.	1900	10,868,660	3,918,385	365,817	142,731	39.0%
Continental Life Insurance Co.	1899	10,122,943	2,219,925	313,003	129,901	41.5%
National Life Ass. Co. of Canada	1899	23,908,408	5,505,259	692,135	289,393	41.8%
Excelsior Life Insurance Co.	1889	20,525,154	4,520,662	593,417	251,212	42.3%
Provincial Life Assurance Co.	1910	3,138,525	1,131,000	99,109	50,464	50.9%
Sovereign Life Ass. Co. of Canada	1902	5,357,350	2,100,000	174,460	96,008	55.3%
Policy Holders Mutual Life Ins. Co.	1910	1,686,150	459,500	37,474	22,318	59.5%
Monarch Life Assurance Co.	1906	7,427,697	2,301,009	172,415	103,773	60.1%
Travellers' Life Ass. Co. of Canada	1910	2,946,552	1,394,505	75,257	51,600	68.5%
Capital Life Assurance Co. of Canada.	1911	2,523,480	917,000	69,549	50,484	72.5%
British Columbia Life Assurance Co.	1909	3,844,581	2,154,834	110,785	86,657	78.2%
Security Life Ins. Co. of Canada	1911	1,245,000	634,000	30,928	44,904	145.1%
Alberta-Saskatchewan Life Ins. Co.	1913	233,000	309,500	6,385	18,834	294.9%
BRITISH COMPANIES:						
Phœnix Assurance Co., Limited	1782	....	....	3,570,416	457,873	12.8%
Royal Insurance Co., Limited	1845	....	....	3,930,197	519,741	13.2%
Standard Life Insurance Co.	1825	....	....	5,090,144	971,606	19.0%
London & Lancashire Life & General Assurance Association, Limited	1862	....	....	2,073,865	419,145	20.9%
Gresham Life Assurance Society, Ltd	1848	....	....	5,278,155	1,186,573	22.3%
AMERICAN COMPANIES:						
New York Life Insurance Co.	1845	2,347,098,388	238,854,169	88,215,027	14,511,375	16.4%
Mutual Life Ins. Co. of New York	1842	1,608,225,577	152,880,191	56,225,202	10,469,244	18.5%
Prudential Insurance Co. of America	1876	1,039,923,676	204,728,508	32,178,907	6,174,054	19.1%
Metropolitan Life Insurance Co.	1866	1,152,846,382	228,739,561	41,665,649	7,926,076	19.2%
Equitable Life Ass. Society of U. S.	1859	1,494,234,342	136,867,367	53,329,047	10,336,864	19.3%
Ætna Life Insurance Co.	1850	380,126,544	63,966,986	12,317,287	2,823,327	22.9%
Union Mutual Life Insurance Co.	1848	65,058,956	6,931,378	2,369,850	562,687	23.7%
Travellers' Insurance Co.	1863	335,256,718	60,283,388	9,858,881	2,436,186	24.7%
COMPANIES DOING INDUSTRIAL INSURANCE BUSINESS IN CANADA:						
Prudential Insurance Co. of America	1876	1,567,542,431	346,782,340	54,556,149	18,116,008	33.2%
Metropolitan Life Insurance Co.	1866	1,837,584,189	289,005,085	62,537,494	21,880,746	34.9%
London Life Ins. Co., London, Ont.	1874	13,447,902	5,912,927	575,914	304,255	52.8%

OFFICIALS AND HEAD OFFICES OF LIFE INSURANCE COMPANIES DOING BUSINESS IN CANADA

CANADIAN LIFE INSURANCE COMPANIES.

Alberta-Saskatchewan Life Insurance Company.
Incorporated 1911.
Head Office, Edmonton, Alta.
President, Arthur Davis.
Manager, P. E. Butchard.
Secretary, L. L. Moody.

British Columbia Life Assurance Company.
Incorporated 1909.
Head Office, Vancouver, B.C.
President, L. W. Shatford, M.P.P.
General Manager, Sanford S. Davis.
Secretary, C. F. Stever.

Canada Life Assurance Company.
Organized 1847.
Head Office, Toronto, Ont.
President and General Manager, H. C. Cox.
Secretary, C. R. Acres.
Actuary, W. A. P. Wood, F.A.S.

Capital Life Assurance Company of Canada.
Incorporated 1911.
Head Office, Ottawa, Ont.
President, M. J. O'Brien.
Managing Director, A. E. Corrigan.
Secretary and Actuary, M. D. Grant, F.I.A.

Confederation Life Association.
Incorporated 1871.
Head Office, Toronto, Ont.
President, J. K. Macdonald.
Managing Director and Actuary, W. C. Macdonald.

Continental Life Insurance Company.
Incorporated 1899.
Head Office, Toronto, Ont.
President, Geo. B. Woods.
Secretary and Actuary, Chas. H. Fuller.

Crown Life Insurance Company.
Incorporated 1900.
Head Office, Toronto, Ont.
President, G. T. Somers.
General Manager, William Wallace.
Secretary, A. H. S. Marks.
Actuary, H. R. Stephenson, A. I. A.

Dominion Life Assurance Company.
Incorporated 1889.
Head Office, Waterloo, Ont.
President and Managing Director, Thos. Hilliard.
Secretary, P. H. Ross.
Actuary, M. P. Langstaff, A.I.A.

Excelsior Life Insurance Company.
Incorporated 1889.
Head Office, Toronto, Ont.
President, David Fashion.
General Manager, Edwin Marshall.
Secretary, Chas. Q. Parker.
Actuary, T. A. Dark.

Great West Life Assurance Company.
Incorporated 1891.
Head Office, Winnipeg, Man.
President, Alex. Macdonald.
Managing Director, J. H. Brock.
Secretary, A. Jardine.
Actuary, C. C. Furguson, A.I.A.

Imperial Life Assurance Company of Canada.
Incorporated 1896.
President, G. A. Morrow.
Managing Director, J. F. Weston.
Secretary, D. Matheson.
Actuary, G. Cecil Moore A.I.A.

London Life Insurance Company.
Incorporated 1874.
Head Office, London, Ont.
President, John McLary.
Manager and Secretary, J. G. Ritcher, F.A.S.
Actuary, E. E. Reid, A.I.A.

Mutual Life Assurance Company of Canada.
Incorporated 1869.
Head Office, Waterloo, Ont.
President, E. P. Clement, K.C.
Managing Director, Geo. Wegenast.
Secretary, Chas. Ruby.
Actuary, M. S. Hallam.

National Life Assurance Company of Canada.
Incorporated 1897.
Head Office, Toronto, Ont.
President, Elias Rogers.
Managing Director, A. P. Ralston.
Secretary, F. Sparling.
Actuary, J. P. P. Oliver.

North American Life Assurance Company.
Incorporated 1879.
Head Office, Toronto, Ont.
President, Edward Gurney.
Managing Director, L. Goldman.
Secretary, W. B. Taylor.
Actuary, D. E. Kilgour, F.A.S.

Northern Life Assurance Company of Canada.
Incorporated 1894.
Head Office, London, Ont.
President, T. H. Purdom, K.C.
General Manager, W. J. McMurtry.
Secretary, J. W. Purdom.
Actuary, W. G. Fitzgerald.

Saskatchewan Life Insurance Company.
Incorporated 1912.
Head Office, Regina, Sask.
President, W. T. Mollard.
Managing Director, T. F. Conrad.
Secretary, A. S. McCombie.

LeSauvegards Life Insurance Company.
Incorporated 1903.
Head Office, Montreal, Que.
President, E. N. Duchanne.
Manager, P. Bonhomme.
Secretary, A. Leger.
Actuary, A. Bonhomme.

Security Life Insurance Company of Canada.
Incorporated 1907.
Head Office, Montreal, Que.
President, J. O. McCarthy.
Managing Director, J. W. Garvin.
Secretary-Treasurer, T. M. Costigan.

Sovereign Life Assurance Company of Canada.
Incorporated 1902.
Head Office, Winnipeg, Man.
President, Robt. R. Scott.
Managing Director, H. J. Meiklejohn.
Secretary, Jas. Hays.
Actuary, S. H. Pipe.

Sun Life Assurance Company of Canada.
Incorporated 1865.
Head Office, Montreal, Que.
President and Managing Director, T. B. Macauley, F.I.A.
Secretary and Actuary, A. B. Wood, F.I.A.

Travellers' Life Assurance Company of Canada.
Incorporated 1908.
Head Office, Montreal, Que.
President, Hon. G. P. Graham.
Secretary and Actuary, A. P. Earle, A.I.A.

BRITISH LIFE INSURANCE COMPANIES.

Commercial Union Assurance Co., Ltd. (See particulars under Fire Insurance), London, England.

Gresham Life Assurance Society, Limited, London, Eng. Chairman, Chas. A. Hanson; Secretary, Alex. Lawson; Head Office in Canada, Montreal, Que.; Chief Agent in Canada, Arch. R. Howell.

Liverpool, London and Globe Insurance Co., Limited, Liverpool, England. (See particulars under Fire Insurance).

London & Lancashire Life & General Assurance Association, Limited, London, England. Chairman, Vesey G. M. Holt; General Manager, Aeneas Mackay; Head Office in Canada, Montreal, Que.; Chief Agents in Canada: Alex. Bisset, Manager; W. H. R. Emerson, Secretary. (*See advt. in Journal of Commerce*).

London Assurance, London, England. (See particulars under Fire Insurance).

North British & Mercantile Insurance Co., Edinburgh, Scotland. (See particulars under Fire Insurance).

The Norwich Union Life Insurance Society, Norwich, England. General Manager, Davidson Walker; Secretary, M. Mackenzie Lees; Head Office in Canada, Toronto; Chief Agent in Canada, John B. Laidlaw.

Phœnix Assurance Co., Limited, London, England. (See particulars under Fire Insurance).

Royal Insurance Co., Limited, Liverpool, England. (See particulars under Fire Insurance).

Standard Life Insurance Co., Edinburgh, Scotland. Manager, Leonard W. Dickson; Secretary, John Hogben; Head Office in Canada, Montreal, Que. Manager in Canada, G. M. McGoun.

Star Assurance Society, London, England. Chairman, Sir Geo. W. Truscott; Secretary, Jas. D. Watson; Head Office in Canada, Toronto, Ont. Chief Agent in Canada, Alfred Wm. Briggs.

AMERICAN LIFE INSURANCE COMPANIES.

Ætna Life Insurance Co., Hartford, Conn., U.S.A. President, Morgan G. Bulkeley; Secretary, C. E. Gilbert; Head Office in Canada, Montreal, Que.; Chief Agent in Canada, T. H. Christmas.

Equitable Life Assurance Society of the United States, New York City, N.Y., U.S.A. President, W. A. Day; Secretary, Wm. Alexander; Head Office in Canada, Montreal, Que.; Chief Agent in Canada, S. P. Stearns.

Germanis Life Insurance Company, New York City, N.Y. President, Herbert Gillis; Secretary, Carl Heye; Head Office in Canada, Montreal, Que.; Chief Agent in Canada, C. R. G. Johnson.

Metropolitan Life Insurance Co., New York City, N.Y. President, John R. Hegaman; Secretary, Jas. S. Roberts; Head Office in Canada, Montreal, Que.; Chief Agent in Canada, A. E. B. Claxton.

Mutual Life Insurance Co. of New York, New York City, N.Y., U.S.A. President, Chas. A. Peabody; Secretaries, Wm. J. Easton, Wm. J. Dix; Head Office in Canada, Montreal, Que.; Chief Agent in Canada, Fayette Brown.

New York Life Insurance Co., New York City, N.Y., U.S.A. President, Darwin P. Kinsley; Secretary, Seymour M. Ballard; Head Office in Canada, Montreal, Que.; Chief Agent in Canada, P. V. Raven.

Provident Savings Life Insurance Society of New York, New York City, N.Y., U.S.A. President, Wm. R. Malone; Secretary, Wesley Sisson; Head Office in Canada, Toronto, Ont.; Chief Agent in Canada, Jas. S. Lovell.
The Policies of this Society have been assumed by the Postal Life Insurance Co. of New York.

Prudential Insurance Co. of America, Newark, N.J., U.S.A. President, Forrest Dryden; Secretary, Williard I. Hamilton; Head Office in Canada, Montreal, Que.; Chief Agent in Canada, Wm. White.

State Insurance Co., Indianapolis, Ind., U.S.A. President, W. H. Bennett; Secretary, Albert Sahm; Head Office in Canada, Toronto, Ont.; Chief Agent in Canada, W. H. Hunter.

The Travellers Insurance Co., Hartford, Conn., U.S.A. President, S. C. Durham; Secretary, J. L. Howard; Head Office in Canada, Montreal, Que.; Chief Agent in Canada, F. F. Parkins.

Union Mutual Life Insurance Co., Portland, Me., U.S.A. President, Arthur L. Bates; Secretary, S. B. Phillips; Head Office in Canada, Montreal, Que; Attorney and Chief Agent in Canada, Henri S. Morin.

United States Life Insurance Co. in the City of New York, New York City, N.Y., U.S.A. President, John P. Munn, M.D.; Secretary, A. Wheelwright; Head Office in Canada, Toronto, Ont.; Attorney and Chief Agent in Canada, Lewis A. Stewart.

AUSTRALIAN LIFE INSURANCE COMPANIES.

Mutual Life & Citizens Assurance Co., Ltd., Sydney, N.S.W., Australia. Managing Director, John J. Garvin; Secretary, W. J. Bloomfield; Head Office in Canada, Montreal, Que.; Chief Agent in Canada, J. P. Moore.

The following Insurance Companies have ceased to do business in Canada but still continue to look after the Canadian policies which they wrote at one time

Connecticut Mutual Life Insurance Co., Hartford, Conn., U.S.A. Canadian Agent, F. W. Evans, Montreal, Que.

Edinburgh Life Insurance Co., Edinburgh, Scotland. Canadian Agent, D. T. Symons, Toronto, Ont.

Life Association of Scotland, Edinburgh, Scotland. Attorney in chief, Chas. M. Holt, Montreal, Que.

National Life Insurance Co. of United States of America, Chicago, Ill., U.S.A. Canadian Representative, Alfred Powis, Hamilton, Ont.

North Western Mutual Life Insurance Co., Milwaukee, Wis., U.S.A. Attorney in Chief, Wm. Angus, Montreal, Que.

Phœnix Mutual Life Insurance Co., Hartford, Conn., U.S.A. Canadian Representative, C. R. G. Johnson, Montreal, Que.

Scottish Amicable Life Assurance Society, Glasgow, Scotland. Canadian Representative, Chas. J. Fleet, Montreal, Que.

Scottish Provident Institution, Edinburgh, Scotland. Canadian Representative, John H. Dunlop, Montreal, Que.

FIRE INSURANCE COMPANIES DOING BUSINESS IN CANADA

CANADIAN FIRE INSURANCE COMPANIES.

Acadia Fire Insurance Co. Head Office, Halifax, N.S. President, C. C. Blackader; Secretary, R. H. Elliott.

Anglo-American Fire Insurance Co. Head Office, Toronto, Ont. President, E. E. A. DuVernet, K.C.; Manager and Secretary, J. W. Rutherford.

Beaver Fire Insurance Co., Head Office, Winnipeg, Man. President, W. J. Christie; Manager and Secretary, A. DeJardin.

British American Assurance Co. Head Office, Toronto, Ont. President, W. R. Brock; Vice-President and General Manager, W. E. Meikle; Agent, E. F. Garrow. (See advt. in *The Journal of Commerce*).

British Colonial Fire Insurance Co. Head Office, Montreal, Que. President, Hon. C. E. Dubord. Secretary and Managing Director, Theodore Meunier.

British Northwestern Fire Insurance Co. Head Office, Winnipeg, Man.; President, Ed. Brown; Secretary and Managing Director, F. K. Foster.

Canadian National Fire Insurance Co., Head Office, Winnipeg, Man. President, Capt. Wm. Robertson; Managing Director, W. T. Alexander.

Canadian Fire Insurance Co. Head Office, Winnipeg, Man.; President, Jas. H. Ashdown; Secretary and Manager, C. S. Riley.

Dominion Fire Insurance Co., Head Office, Toronto, Ont.; Secretary, N. W. Renwick.

Equity Fire Insurance Co of Canada. Head Office, Toronto, Ont.; President, Hon. Thos. Crawford; Manager, Thos. J. Ervine.

Factories Insurance Co. Head Office, Toronto, Ont.; President, C. R. Clapp; Secretary, R. J. Mahony.

Hudson Bay Insurance Co. Head Office, Vancouver, B.C.; President, John R. Berry; Manager, Chas. E. Berg; Secretary, S. F. Quick.

Imperial Underwriters Corporation of Canada. Head Office, Toronto, Ont.; President, H. M. Blackburn; Secretary, F. E. Heyes.

Liverpool-Manitoba Assurance Co. Head Office, Montreal, Que.; President and Managing Director, J. Gardner Thompson; Vice-President,and Secretary Lewis Lang.

London and Liverpool Fire Insurance Co. of Canada. Head Office, Toronto, Ont.; President, A. H. C. Carson; Secretary, A. T. Platt.

Mercantile Fire Insurance Co. Head Office, Waterloo, Ont.; President, W. A. Sims; Managing Director, A. E. Blogg; Secretary, Alfred Wright.

Montreal-Canada Fire Insurance Co. Head Office, Montreal, Que. President, E. E. A. DuVernet; Manager and Secretary, J. W. Rutherford.

Mount Royal Assurance Co. Head Office, Montreal, Que.; President, Hon. H. B. Rainville; Secretary and Manager, J. E. Clemens.

North Empire Fire Insurance Co. Head Office, Winnipeg, Man. President, D. H. Macdonald; Secretary and Manager, Geo. C. Johnson.

Northwest Fire Insurance Co. Head Office, Winnipeg, Man.; President, G. R. Crowe; General Manager, T. L. Morisey; Deputy Manager, Thos. Bruce.

Occidental Fire Insurance Co. Head Office, Winnipeg' Man.; President, Randall Davidson; Manager and Secretary, C. A. Richardson.

Pacific Coast Fire Insurance Co. Head Office, Vancouver, B.C.; President, D. H. Wilson, M.D.; Secretary, Fred. H. Godfrey; Manager, T. Wesley Greer.

Quebec Fire Insurance Co. Head Office, Quebec City, Que.; President, Victor Chateauvert; Secretary, G. H. Henderson.

Western Assurance Co. Head Office, Toronto, Ont.; President, W. T. Brock; Vice-Persident and Manager W. N. Meikle; Secretary, C. C. Foster. (See advt. in *The Journal of Commerce*).

BRITISH FIRE INSURANCE COMPANIES.

Alliance Assurance Co., London, Eng. Head Office in Canada, Montreal, Que.; Chairman, Rt. Hon. Lord Rothschild; General Manager, Robt. Lewis; Chief Agent in Canada, Thos. D. Belfield.

Atlas Assurance Co., London, England. Head Office in Canada, Montreal, Que.; Chairman, Herbert Brooks; General Manager and Secretary, Samuel J. Pitkin; Chief Agent in Canada, M. C. Hinshaw.

Caledonian Insurance Co., Edinburgh, Scotland. President, Robt. Chapman; Secretary, R. Hill Stewart; Head Office in Canada, Montreal, Que.; Manager in Canada, J. G. Brothwick.

Commercial Union Assurance Co., London, England. Chairman, Sir Jeremiah Colman, Bart.; Secretary, Henry Mann; Head Office in Canada, Montreal, Que.; Chief Agent in Canada, Jas. McGregor.

Employers' Liability Assurance Corporation, London Eng. President, Lord Claude Hamilton; General Manager and Secretary, W. E. Gray; Head Office in Canada, Montreal, Que.; Chief Agent in Canada, Richard I .Griffin.

General Accident, Fire & Life Assurance Corporation, Limited, Perth, Scotland. Chairman, Donald M. Mackay; Secretary, J. Mayhew Allan; Head Office in Canada, Toronto, Ont.; Chief Agent in Canada, Thos. H. Hall.

Guardian Assurance Co., Limited, London, England. Chairman, Hon. Evelyn Hubbard; Manager Fire Department, A. J. Relton; Head Office in Canada, Montreal, Que.; Chief Agent in Canada, Hugh M. Lambert.

Law, Union and Rock Insurance Co., Limited, London, England. Chairman, Chas. G. Hamilton; General Manager and Secretary, Robt. Sterling; Head Office in Canada, Montreal, Que.; Chief Agent in Canada, J. E. E. Dickson. (See advt. in *The Journal of Commerce*).

Liverpool and London and Globe Insurance Co., Ltd., Liverpool, Eng. Chairman, Evelyn S. Parker; General Manager and Secretary, A. G. Dent; Head Office in Canada, Montreal, Que.; Manager in Canada, J. Gardner Thompson.

London and Lancashire Fire Insurance Co., Limited, Liverpool, England. Chairman, John H. Clayton; General Manager and Secretary, F. W. P. Rutter; Head Office in Canada, Toronto, Ont.; Chief Agent in Canada, Alfred Wright.

London Assurance, London, Eng. Gov., Colin F. Campbell; Manager Fire Dept., James Clunes; Head Office in Canada, Montreal, Que.; Joint Managers in Canada, W. Kennedy and W. B. Colley.

Marine Insurance Co., London, England. President, Robt. Barring; Head Office in Canada, Halifax, N.S.; Chief Agent in Canada, W. J. E. Thomson.

North British and Mercantile Insurance Co., Edinburgh, Scotland. Chairman, Chas. J. Carter Scott; Manager, Owen D. Jones; Head Office in Canada, Montreal, Que.; Manager in Canada, Randall Davidson.

Northern Assurance Co., Limited, London, Eng., and Aberdeen, Scotland. Chairman, Henry Chas. Hanbro; General Manager, H. E. Wilson; Head Office in Canada, Montreal, Que.; Manager for Canada, Robt. W. Tyre.

Norwich Union Fire Insurance Society, Limited, Norwich, England. President, Major F. Astley Cubitt; General Manager and Secretary, John Large; Head Office in Canada, Toronto, Ont.; Chief Agent in Canada, John B. Laidlaw.

Palatine Insurance Co., Limited, London, Eng. Managing Director, E. Roger Owen; Secretary, Henry Mann; Head Office in Canada, Montreal, Que.; Chief Agent for Canada, James McGregor.

Phœnix Assurance Co., Limited, London, England. Chairman, Rt. Hon. Lord Geo. Hamilton; Manager, Sir G. H. Ryan; Head Office in Canada, Montreal, Que.; General Agents in Canada, R. McD. Paterson and J. B. Paterson.

Provincial Assurance Co., Limited, Bolton, England. Chairman, Sir Samuel Scott; Secretary, F. C. Scott; Head Office in Canada, Montreal, Que.; Chief Agents in Canada, Willis Faber & Co., of Canada, Limited.

Royal Exchange Assurance Co., London, England. Gov., Vivian Hugh Smith; Secretary, W. H. Whimper; Head Office in Canada, Montreal, Que.; Chief Agent in Canada, Arthur Barry.

Royal Insurance Co., Limited, Liverpool, England. Chairman, Herbert W. Hind; Manager, Geo. Chappell; Head Office in Canada, Montreal, Que.; Manager in Canada, Wm. Mackay.

Scottish Union & National Insurance Co., Edinburgh, Scotland. General Manager, James A. Cook; Secretary, John Gunn; Head Office in Canada, Montreal, Que.; Chief Agents in Canada, Esinhart & Evans.

Sun Insurance Office, London, England. Chairman, Marlborough R. Pryor; Manager, Geo. Edward Mead; Head Office in Canada, Toronto, Ont.; Manager in Canada, H. M. Blackburn.

Union Assurance Society, Limited, London, England. Chairman, Chas. Mortimer; General Manager, Herbert Mortimer. Head Office in Canada, Montreal, Que.; Chief Agent in Canada, T. L. Morisey. (See advt. in *The Journal of Commerce*).

Yorkshire Insurance Co., York and London, England. Chairman, Edwin Gray; Secretary and General Manager, James Hamilton; Head Office in Canada, Montreal, Que.; Manager, in Canada, P. M. Wickham.

FRENCH FIRE INSURANCE COMPANIES.

Compagnie d'Assurances Generales contre l'Incendie. Principal Office, Paris, France. President, Baron de Neuflize; Manager, M. Paul LeVaseur; Head Office in Canada, Montreal; Chief Agent in Canada, Jos. A. Laurin.

L'Union Compagnie d'Assurances contre l'Incendie, Paris, France. Principal Office, Paris, France; President, Stephanie Derville; Manager, Baron H. Cerise; Head Office in Canada, Montreal; Chief Agent in Canada, Louis Maurice Ferrand.

UNITED STATES FIRE INSURANCE CO'S.

Aetna Insurance Co. Principal Office, Hartford, Conn.; President, Wm. B. Clarke; Secretary, E. J. Sloan; Head Office in Canada, Montreal; Chief Agent in Canada, F. W. Evans.

American Central Insurance Co. Principal Office, St. Louis, Mo.; President, Edw. T. Campbell; Secretary, B. G. Chapman, Jr.; Head Office in Canada, Winnipeg; Chief Agent in Canada, W. P. Fess.

American Insurance Co. Principal Office, Newark, N.J.; President, P. L. Hoadley; Secretary, C. W. Bailey; Head Office in Canada, Winnipeg; Chief Agent in Canada, C. S. Riley.

American Lloyds. Principal Office, New York, N.Y.; Secretary, Edward E. Hall; Head Office in Canada, Ottawa; Chief Agent in Canada, E. D. Hardy.

California Insurance Co. Principal Office, San Francisco, Cal.; President, W. E. Dean; Secretary, Geo. W. Brooks; Head Office in Canada, Vancouver, B.C.; Chief Agent in Canada, Frank Burnett, Sr.

Connecticut Fire Insurance Co. Principal Office, Hartford, Conn.; President, Edward Milligan; Secretary, John A. Cosmus; Head Office in Canada, Montreal; Chief Agent in Canada, J. W. Tatley.

Continental Insurance Co. Principal Office, New York; President, Henry Evans; Secretary, J. E. Lopez; Head Office in Canada, Montreal; Chief Agent in Canada, Joseph Rowat.

Equitable Fire and Marine Insurance Co. Principal Office, Providence, R.I.; President, Fred W. Arnold; Secretary, Samuel G. Howe; Head Office in Canada, Montreal; Chief Agent in Canada, J. W. Tatley.

Fidelity-Phenix Fire Insurance Co. of New York. Principal Office, 80 Maiden Lane, New York, N.Y.; President, Henry Evans; Secretary, J. A. Swinnerton; Head Office in Canada, Toronto; Chief Agent in Canada, A. M. M. Kirkpatrick.

Fireman's Fund Insurance Co. Principal Office, San Francisco, Cal.; President, William J. Dutton; Secretary, Louis Weinmann; Head Office in Canada, Toronto; Chief Agent in Canada, John H. Hunter.

Firemen's Insurance Co. of Newark, N.J. Principal Office, Newark, N.J.; President, Daniel H. Dunham; Secretary, A. H. Hassinger; Head Office in Canada, Winnipeg; Chief Agent in Canada, Benjamin B. Smith.

German American Insurance Co. Principal Office, 1 Liberty St., New York; President, William N. Kremer; Secretary, Edwin M. Cragin; Head Office in Canada, Montreal; Chief Agents in Canada, Esinhart and Evans.

Glens Falls Insurance Co. Head Office, Glens Falls, N.Y.; President, J. L. Cunningham; Secretary, E. W. West; Head Office in Canada, Toronto; Chief Agent in Canada, W. H. George.

Hartford Fire Insurance Co. President, R. M. Bissell; Secretary, Frederick Samson; Head Office in Canada, Toronto; Chief Agent in Canada, P. A. McCallum.

Home Insurance Co. Principal Office, New York; President, Eldridge G. Snow; Secretary, Arenah M. Burtis; Head Office in Canada, Montreal; Chief Agent in Canada, F. W. Evans.

Insurance Co. of North America. Principal Office, Philadelphia, Pa.; President, Eugene L. Ellison; Secretary, T. Howard Wright; Head Office in Canada, Montreal; Chief Agents in Canada, Robert Hampson and Son, Ltd.

Insurance Co. of State of Pennsylvania. Principal Office, Philadelphia, Pa.; President, Gustavus Remak, Jr.; Secretary, Edward L. Goff; Head Office in Canada, Toronto; Chief Agent in Canada, Paul Von Szeliski.

Lumber Insurance Co. Principal Office, New York; President, G. A. Mitchell; Secretary, R. H. McKelvey; Head Office in Canada, Ottawa; Chief Agent in Canada, E. D. Hardy.

National Fire Insurance Co. of Hartford. Principal Office, Hartford, Conn.; President, James Nichols; Secretary, Geo. H. Tryon; Head Office in Canada, Toronto; Chief Agents in Canada, Smith, MacKenzie and Hall.

National Union Fire Insurance Co. of Pittsburgh, Pa. Principal Office, Pittsburgh, Pa., U.S.A.; President, E. E. Cole; Secretary, W. F. Braun; Head Office in Canada, Toronto; Chief Agent in Canada, Toronto; Chief Agent in Canada, H. J. Richmond.

Niagara Fire Insurance Co. Principal Office, New York, N.Y.; President, Harold Herrick; Secretary, Geo. W. Dewey; Head Office in Canada, Montreal; Chief Agent in Canada, W. E. Findlay.

Northwestern National Insurance Co. of Milwaukee, Wis. Principal Office, Milwaukee, Wis.; President, Wilford M. Patton; Secretary, Joseph Huebl; Head Office in Canada, Winnipeg, Man.; Chief Agent in Canada, Guy M. Harris.

Phoenix Insurance Co. of Hartford. Principal Office, Hartford, Conn.; President, Edw. Milligan; Secretaries, J. B. Know and Thos. C. Temple; Head Office in Canada, Montreal; Chief Agent in Canada, J. W. Tatley.

Providence Washington Insurance Co. Principal Office, Providence, R.I.; President, J. B. Branch; Secretary, A. G. Beals; Head Office in Canada, Montreal; Chief Agents in Canada, Robt. Hampson and Son, Ltd.

Queen Insurance Co. of America. Principal Office, New York; President, Edward F. Beddall; Secretary, N. S. Bartow; Head Office in Canada, 1709 Notre Dame St., Montreal; Agent in Canada, William Mackay.

Springfield Fire and Marine Insurance Co. Principal Office, Springfield, Mass.; President, A. W. Damon; Secretary, W. J. Mackay; Head Office in Canada, Toronto; Chief Agent in Canada, Joseph Murphy.

St. Paul Fire and Marine Insurance Co. Principal Office, St. Paul, Minn.; President, F. R. Bigelow; Secretary, A. W. Perry; Head Office in Canada, Montreal; Chief Agents in Canada, Dale & Co.

Westchester Fire Insurance Co. Principal Office, New York, N.Y.; President, Geo. R. Crawford; Secretary, Otto E. Schaefer; Head Office in Canada, Montreal; Chief Agent in Canada, J. W. Tatley.

FIRE INSURANCE BUSINESS IN CANADA DURING 1914.

COMPANIES	Subscribed Capital	Capital paid up	Assets in Canada	Gross Amount of Risks taken during the Year	Premiums charged thereon	Rate of premiums charged per cent of risks taken
Canadian Companies:	$	$	$	$	$	
Acadia Fire	400,000	400,000	513,931	18,326,431	251,132.91	1.37
Anglo-American	215,100	76,876	79,288	21,469,043	289,839.23	1.35
Beaver	300,500	120,200	139,698	4,605,656	77,478.78	1.68
British-American	1,400,000	1,399,030	625,974	73,780,407	788,634.91	1.07
British Colonial	1,000,000	170,350	59,402	28,710,954	309,120.38	1.08
British Northwestern	594,400	232,407	233,150	5,593,064	102,461.57	1.83
Canada National	2,050,400	1,327,460	1,562,205	22,152,139	342,961.49	1.55
Canadian Fire	500,000	500,000	949,800	28,555,652	455,783.50	1.60
Dominion Fire	309,400	208,065	92,349	28,158,802	391,846.47	1.39
Equity Fire	441,700	224,502	37,385	....	....	....
Factories	160,000	100,000	91,327	34,445,750	436,374.76	1.27
Hudson Bay	872,400	188,080	262,680	9,922,357	186,250.01	1.88
Imperial Underwriters	457,400	110,475	177,159	10,528,108	121,942.36	1.16
Liverpool-Manitoba	500,000	175,000	548,498	39,478,395	529,725.43	1.34
London Mutual	100,000	17,500	151,701	72,959,675	666,179.61	0.91
Mercantile Fire	250,000	50,000	307,652	25,390,361	300,096.92	1.18
Montreal-Canada	152,665	112,905	67,897	14,536,123	199,421.36	1.37
Mount Royal	250,000	250,000	505,622	47,141,384	593,152.88	1.26
North Empire Fire	687,150	202,930	207,389	11,033,400	216,804.45	1.96
North West Fire	250,000	100,000	190,618	14,163,792	194,681.23	1.37
Occidental Fire	500,000	174,763	246,251	5,874,485	138,677.99	2.36
Pacific Coast Fire	831,600	577,376	807,133	12,243,156	169,833.77	1.39
Quebec Fire	225,000	125,000	487,537	28,001,652	308,664.91	1.10
Western	2,500,000	2,484,626	1,225,493	106,468,591	1,135,130.51	1.07
TOTALS	14,947,715	9,327,545	9,495,369	663,539,377	8,206,195.43	1.24
British Companies:	$	$	$	$	$	
Alliance	26,523,333	4,866,666	314,947	26,155,118	252,995.49	.97
Atlas	10,706,666	1,284,800	510,922	48,149,735	612,457.67	1.27
Caledonian	2,615,833	523,166	524,190	45,463,173	526,309.59	1.16
Commercial Union	14,356,666	1,435,666	1,386,585	102,738,333	1,104,297.71	1.07
Employers' Liability	4,866,666	973,332	1,458,657	35,333,456	385,714.47	1.09
General Accident, Fire and Life	5,750,000	2,000,000	383,718	29,702,725	342,510.85	1.15
Guardian Assurance Co.	9,733,333	4,866,666	1,350,161	86,567,723	1,120,801.47	1.29
Law, Union and Rock	7,875,000	825,000	10,707,847	28,687,972	334,763.71	1.17
Liverpool and London and Globe	12,922,216	1,292,221	3,709,816	142,723,265	1,788,922.19	1.25
London and Lancashire	12,854,083	1,285,408	874,173	83,550,996	897,887.18	1.07
London Assurance	4,363,210	2,181,605	350,195	31,718,256	374,697.19	1.18
Marine Insurance Co.	4,866,666	2,920,000	117,630	....	....	....
North British and Mercantile	21,900,000	11,862,000	1,431,535	96,286,336	1,140,073.59	1.18
Northern Assurance	14,600,000	1,460,000	823,349	67,398,717	877,017.61	1.30
Norwich Union Fire	4,642,400	2,822,666	1,021,467	73,606,390	889,302.49	1.21
Palatine Insurance Co.	486,666	486,666	288,884	25,645,785	321,725.60	1.25
Phœnix, of London	15,625,163	2,057,894	966,523	97,927,950	1,285,915.32	1.31
Provincial	876,000	438,000	120,844	7,811,504	54,191.99	.69
Royal Exchange	3,354,203	3,354,203	1,032,535	47,006,381	489,640.79	1.04
Royal Insurance Co.	14,330,776	2,189,616	2,778,977	146,814,153	1,706,899.02	1.16
Scottish Union and National	23,780,285	1,460,000	1,305,104	39,592,727	421,576.90	1.06
Sun Insurance Office	11,680,080	1,168,008	656,242	44,282,491	565,298.66	1.28
Union Assurance Society	2,190,000	243,333	605,851	53,383,634	643,268.15	1.20
Yorkshire	4,110,860	608,904	3,131,874	37,653,674	442,444.12	1.18
TOTALS				1,398,200,494	16,578,711.76	1.19

FIRE INSURANCE BUSINESS IN CANADA DURING 1914.

COMPANIES	Subscribed Capital	Capital paid up	Assets in Canada	Gross Amount of Risks taken during the Year	Premiums charged thereon	Rate of premiums charged per cent of risks taken
French Companies:	$	$	$	$	$	
Compagnie de Assurance	400,000	400,000	122,638	10,441,694	123,124.64	1.18
La National	2,000,000	500,000	115,988	11,187,317	141,988.92	1.27
L'Union	2,000,000	500,000	235,535	19,994,372	240,267.37	1.20
TOTALS				40,623,383	505,380.93	1.24
United States Companies:	$	$	$	$	$	
Ætna Insurance Co.	5,000,000	5,000,000	344,807	33,788,700	412,853.85	1.22
American Central	1,000,000	1,000,000	243,710	29,155,885	264,658.77	.91
American Insurance Co.	1,000,000	1,000,000	76,496	5,023,310	85,398.67	1.70
American Lloyds	......	......	75,994	5,345,409	20,518.82	.38
California Insurance Co.	400,000	400,000	58,378	3,108,615	58,613.52	1.89
Connecticut Fire	3,000,000	1,000,000	153,067	13,896,141	178,981.41	1.29
Continental Insurance Co.	2,000,000	2,000,000	280,863	36,692,722	368,097.71	1.00
Equitable Fire and Marine	500,000	400,000	110,533	13,119,287	142,132.34	1.08
Fidelity-Phenix	2,500,000	2,500,000	423,926	37,744,470	459,911.42	1.22
Fireman's Fund	1,500,000	1,500,000	96,667	13,905,679	167,490.73	1.20
Firemen's Insurance Co.	1,000,000	......	110,819	6,781,023	93,937.03	1.39
German American	2,000,000	2,500,000	521,673	92,760,014	728,112.23	.78
Germania Fire	1,000,000	1,500,000	69,529	5,378,248	89,242.57	1.66
Glens Falls	500,000	500,000	140,947	13,536,325	181,413.55	1.34
Globe and Rutgers	400,000	400,000	156,657	14,447,534	141,731.65	.98
Hartford Fire	2,000,000	2,000,000	1,243,008	111,611,996	1,123,839.22	1.01
Home Insurance Co.	6,000,000	6,000,000	923,048	95,506,363	1,074,805.75	1.13
Insurance Company of Nor. America	4,000,000	4,000,000	523,894	47,006,449	526,560.18	1.12
Insurance Co. of the State of Pa.	1,000,000	1,000,000	233,991	15,083,672	199,671.76	1.32
Lumber Insurance Co.	400,000	400,000	93,662	7,511,560	134,715.56	1.79
National-Ben Franklin	1,000,000	1,000,000	212,377	26,768,010	317,026.43	1.18
National Fire of Hartford	2,000,000	2,000,000	681,005	85,679,369	825,976.37	.96
National Union Fire of Pittsburgh	1,000,000	1,000,000	239,503	22,190,089	286,607.65	1.29
Niagara Fire	1,000,000	1,000,000	235,590	16,538,612	222,293.69	1.34
Northwestern National	1,000,000	1,000,000	136,835	13,485,063	157,780.15	1.17
Phœnix, of Hartford	3,000,000	3,000,000	652,064	48,347,747	541,722.92	1.12
Providence Washington	1,000,000	1,000,000	231,600	19,631,625	234,673.57	1.20
Queen, of America	1,000,000	1,000,000	701,655	57,315,877	726,860.34	1.27
Springfield Fire and Marine	2,500,000	2,500,000	536,559	71,730,495	614,485.06	.86
St. Paul Fire and Marine	1,000,000	1,000,000	300,202	22,725,149	310,869.50	1.37
Westchester Fire	500,000	500,000	164,475	14,923,476	204,656.17	1.37
TOTALS				1,001,638,314	10,895,638.59	1.08

PERSONAL ACCIDENT INSURANCE IN CANADA FOR THE YEAR 1914.

COMPANIES	Premiums for the Year	Amount of Policies New and Renewed
	$	$
Canada Accident	42,615	19,375,649
Canadian Casualty and Boiler	33,609	8,125,150
Dominion Gresham	34,937	9,053,350
Dominion of Canada Guarantee and Accident	220,225	44,624,366
Employers' Liability	127,054	18,533,599
Fidelity and Casualty Company	89,065	32,929,783
General Accident of Canada	55,189	10,484,500
Globe Indemnity Co. of Canada	198,635	38,480,554
Guardian Accident and Guarantee	12,893	4,680,808
Imperial Guarantee and Accident	232,093	25,078,041
Law Union and Rock	14,045	5,162,191
London Guarantee and Accident	145,914	23,168,500
London and Lancashire Guarantee and Accident	59,521	13,193,800
Maryland Casualty	64,065	13,468,704
Merchants' and Employers' Guarantee and Accident	931	181,500
North American Accident	15,886	5,387,200
Norwich Union Fire	11,701	2,971,000
Ocean Accident and Guarantee	191,099	29,505,190
Railway Passengers	66,867	11,256,800
Royal Exchange	13,829	3,893,750
Travelers' Insurance Co., Hartford	212,005	59,789,791
United Commercial Travelers	18,070	2,475,000
United States Fidelity and Guaranty	15,893	6,833,500
Yorkshire	5,314	1,427,750
TOTALS	1,881,455	390,080,476

COMBINED PERSONAL ACCIDENT AND SICKNESS INSURANCE IN CANADA FOR THE YEAR 1914.

COMPANIES	Premiums for the Year	Amount of Policies New and Renewed
	$	$
Loyal Protective	81,121	....
Merchants Casualty Company	78,923	5,020,056
Merchants' and Employers' Guarantee and Accident	5,022	270,100
Protective Association	152,773	....
Ridgely Protective	3,648	....
TOTALS	321,487	5,290,156

AUTOMOBILE INSURANCE IN CANADA FOR THE YEAR 1914.

COMPANIES	Premiums for the Year	Amount of Policies New and Renewed
	$	$
Ætna Insurance Co.	27,660	1,588,345
Canadian Casualty and Boiler	23,178	....
Dominion of Canada Guarantee and Accident	9,408	....
Dominion Gresham	7,206	....
Fireman's Fund	23,319	1,585,025
General Accident of Canada	42,227	12,959,000
Glens Falls	13,544	767,175
Globe Indemnity Co. of Canada	38,138	4,145,000
Hartford Fire	21,569	1,494,536
Home Insurance Co.	24,339	1,352,095
Imperial Guarantee and Accident	11,932	664,000
Insurance Co. of North America	49,309	2,863,325
London and Lancashire Guarantee and Accident	7,663	3,250,000
Marine Insurance Co.	49,971	3,299,260
Niagara Fire	5,674	254,743
Providence Washington	18,797	1,032,420
Queen, of America	57,448	3,031,575
Railway Passengers	7,328	....
Royal Exchange	24,854	2,252,425
St. Paul Fire and Marine	57,990	3,186,538
Travelers Indemnity Co. of Hartford	37,482	12,670,000
Yorkshire	14,568	3,130,000
TOTALS	573,604	....

BURGLARY INSURANCE IN CANADA FOR THE YEAR 1914.

COMPANIES	Premiums for the Year	Amount of Policies New and Renewed
	$	$
Canada Accident	63	25,500
Dominion Gresham	43,948	6,391,619
Dominion of Canada Guarantee and Accident	2,344	343,425
Fidelity and Casualty Co.	19,665	2,293,315
Globe Indemnity Co. of Canada	128	....
Guardian Accident and Guarantee	2,733	313,150
London Guarantee and Accident	1,032	102,340
Maryland Casualty	8,235	1,054,290
United States Fidelity and Guaranty	7,325	1,027,492
TOTALS	85,473	....

EMPLOYERS' LIABILITY INSURANCE IN CANADA FOR THE YEAR 1914.

COMPANIES	Premiums for the Year	Amount of Policies New and Renewed
	$	$
Canada Accident	254,434	14,988,000
Dominion Gresham	29,942	....
Employers' Liability	795,463	31,128,500
Fidelity and Casualty	13,203	2,313,000
General Accident of Canada	155,418	12,689,000
Globe Indemnity Co. of Canada	158,925	6,894,000
Guardian Accident and Guarantee	71,277	....
Imperial Guarantee and Accident	1,179	82,000
Law Union and Rock	57,361	....
London Guarantee and Accident	498,947	12,190,000
London and Lancashire Guarantee and Accident	43,060	5,207,228
Maryland Casualty	205,981	3,128,000
Merchants' & Employers' Guarantee & Accident	73,602	7,390,000
North American Accident	164,592	5,254,761
Norwich Union Fire	18,974	2,539,166
Ocean Accident and Guarantee	505,311	21,432,429
Railway Passengers	50,129	3,340,000
Royal Exchange	11,607	114,000
Travelers' Insurance Co., Hartford	212,512	13,490,000
United States Fidelity and Guaranty	100,004	1,240,518
Yorkshire	11,258	1,630,000
TOTALS	3,433,179	....

GUARANTEE INSURANCE IN CANADA FOR THE YEAR 1914.

COMPANIES	Premiums for the Year	Amount of Policies New and Renewed
	$	$
American Surety Co.	7,372	2,326,758
Canada Accident	2,372	203,125
Canadian Surety	52,546	16,124,940
Dominion Gresham	3,560	1,348,184
Dominion of Canada Guarantee and Accident	33,999	11,290,150
Employers' Liability	65,313	20,169,300
Globe Indemnity Co. of Canada	401	264,266
Guarantee Co. of North America	63,109	27,697,286
Guardian Accident and Guarantee	7,080	2,491,550
Imperial Guarantee and Accident	28,868	8,120,973
International Fidelity	6,552	633,500
London Guarantee and Accident	129,211	32,867,261
London and Lancashire Guarantee and Accident	13,135	5,025,044
Maryland Casualty	17,929	7,138,326
National Surety Co.	58,838	15,390,378
Ocean Accident and Guarantee	25,146	6,957,031
Railway Passengers	15,227	5,236,016
United States Fidelity and Guaranty	211,852	41,281,595
TOTALS	742,510	....

HAIL INSURANCE IN CANADA FOR THE YEAR 1914.

COMPANIES	Premiums for the Year	Amount of Policies New and Renewed
	$	$
British America	44,159	969,132
Canada Hail	43,865	2,351,424
Home Insurance Co.	100,792	1,589,078
Hudson Bay	....	....
Northwestern National	53,442	966,158
TOTALS	242,258	5,875,792

INLAND TRANSPORTATION INSURANCE IN CANADA FOR THE YEAR 1914.

COMPANIES	Premiums for the Year	Amount of Policies New and Renewed
	$	$
American and Foreign Marine	12,052	56,748,965
British and Foreign Marine	1,933	1,477,733
Fireman's Fund	70,914	10,006,270
Hartford Fire	1,881	247,450
Insurance Co. of North America	2,686	293,956
Marine Insurance Co.	65,070	159,910,221
Ocean Marine	15,011	68,717,025
Queen Insurance Co.	2	10,750
St. Paul Fire and Marine	2,849	1,153,500
Western	20,780	33,053,853
TOTALS	193,178	331,619,723

LIVE STOCK INSURANCE IN CANADA FOR THE YEAR 1914.

COMPANIES	Premiums for the Year	Amount of Policies New and Renewed
	$	$
General Animals	69,054	1,610,098
Yorkshire	41,382	848,452
TOTALS	110,436	2,458,550

PLATE GLASS INSURANCE IN CANADA FOR THE YEAR 1914.

COMPANIES	Premiums for the Year	Amount of Policies New and Renewed
	$	$
Canada Accident	20,490	....
Dominion of Canada Guarantee and Accident	25,239	....
Fidelity and Casualty Company	14,721	696,088
Guardian Accident and Guarantee	6,467	....
Imperial Guarantee and Accident	3,818	....
Imperial Underwriters	....	....
Lloyds Plate Glass	72,000	....
London and Lancashire Guarantee and Accident	13,670	....
Maryland Casualty	10,272	....
Mount Royal	5,758	....
National Provincial Plate Glass	16,297	....
New York Plate Glass	24,942	....
North American Accident	24,805	....
Norwich Union Fire	3,805	....
Ocean Accident and Guarantee	34,081	....
Railway Passengers	6,612	....
United States Fidelity and Guaranty	4,671	....
Yorkshire	4,279	....
TOTALS	291,927	696,088

SICKNESS INSURANCE IN CANADA FOR THE YEAR 1914.

COMPANIES	Premiums for the Year	Amount of Policies New and Renewed
	$	$
*Ancient Order of Foresters	148,632	....
Canada Accident	13,540	....
Canadian Casualty and Boiler	15,835	....
Catholic Mutual Benefit Association	13,780	....
Dominion Gresham	16,577	....
Dominion of Canada Guarantee and Accident	125,710	....
Employers' Liability	18,071	4,554,050
Fidelity and Casualty Company	76,138	2,183,659
General Accident of Canada	46,209	....
Globe Indemnity of Canada	137,102	....
Guardian Accident and Guarantee	6,263	....
Imperial Guarantee and Accident	....	....
*Independent Order of Foresters	257,214	....
Law Union and Rock	7,626	....
London Guarantee and Accident	29,423	3,802,500
London and Lancashire Guarantee and Accident	29,286	....
Maryland Casualty	8,387	....
Merchants' and Employers' Guarantee and Accident	120	....
Moose, Grand Lodge of the Loyal Order of	6,770	....
North American Accident	7,513	....
Norwich Union Fire	6,756	....
Ocean Accident and Guarantee	58,724	....
Railway Passengers	16,798	....
Royal Exchange	9,600	....
*Royal Guardians	2,525	7,700
Travelers' Indemnity Co., Hartford	49,483	....
United States Fidelity and Guaranty	7,178	....
*Woodmen of the World	14,855	....
Yorkshire	3,298	....
TOTALS	1,133,413	10,547,909

*Including Funeral Benefits.

SPRINKLER LEAKAGE INSURANCE IN CANADA FOR THE YEAR 1914.

COMPANIES	Premiums for the Year	Amount of Policies New and Renewed
	$	$
American Lloyds, Underwriters at	10,491	1,645,853
British and Foreign Marine	344	77,000
Hartford Fire	23,079	3,530,250
Home Insurance Co.	1,109	190,750
Maryland Casualty	17,037	1,354,276
Springfield Fire and Marine	662	136,500
TOTALS	52,722	6,934,629

STEAM BOILER INSURANCE IN CANADA FOR THE YEAR. 1914.

COMPANIES	Premiums for the Year	Amount of Policies New and Renewed
	$	$
Boiler Inspection and Insurance Co.	70,415	9,514,050
Canadian Casualty and Boiler	26,106	6,870,500
Fidelity and Casualty Co.	18,441	2,978,500
Hartford Steam Boiler	1,200	....
Maryland Casualty Co.	14,714	2,477,135
Travelers' Indemnity Co., Hartford	13,547	2,876,700
United States Fidelity and Guaranty	200	....
TOTALS	144,223	24,716,885

TITLE INSURANCE IN CANADA FOR THE YEAR 1914.

COMPANIES	Premiums for the Year	Amount of Policies New and Renewed
	$	$
Title and Trust Co.	104	9,450
TOTALS	104	9,450

TORNADO INSURANCE IN CANADA FOR THE YEAR 1914.

COMPANIES	Premiums for the Year	Amount of Policies New and Renewed
	$	$
Ætna Insurance Co.	923	230,821
American Central	186	39,300
Fidelity-Phenix	493	139,035
German American	29	16,400
Hartford Fire	3,339	966,190
Home Insurance Co.	2,279	546,795
National Fire of Hartford	564	87,400
National Union Fire of Pittsburgh	50	76,650
Niagara Fire	11	4,000
Northwestern National	516	134,950
Scottish Union and National	200	47,050
Springfield Fire and Marine	2,189	608,138
St. Paul Fire and Marine	2,603	890,993
TOTALS	13,282	3,787,722

WEATHER INSURANCE IN CANADA FOR THE YEAR 1914.

COMPANIES	Premiums for the Year	Amount of Policies New and Renewed
	$	$
Canada Weather Insurance Co.	35,883	1,969,946
TOTALS	35,883	1,969,946

CONSULTING ENGINEERS

Mining Engineers:

Ashley, J. W., Toronto, Ont. (See advt. in *Canadian Mining Journal*).
Burchell, Geo. B., Montreal, Que. (See advt. in *Canadian Mining Journal*).
Carter & Smith, Toronto, Ont. (See advt. in *Canadian Mining Journal*).
Coen, Samuel W., Montreal, Que. (See advt. in *Canadian Mining Journal*).
Depencier, H. P., Montreal, Que. (See advt. in *Canadian Mining Journal*).
Dorr, John V. N., New York City, N.Y., U.S.A. (See advt. in *Canadian Mining Journal*).
Ferrier, W. F., Toronto, Ont. (See advt. in *Canadian Mining Journal*).
Fowler, S. S., Nelson, B.C. (See advt. in *Canadian Mining Journal*).
Forbes, D. L. H., Chuquicamata, Chili. (See advt. in *Canadian Mining Journal*).
Guess & Haultain, Toronto, Ont. (See advt. in *Canadian Mining Journal*).
Gwilliam, J. C., Kingston, Ont. (See advt. in *Canadian Mining Journal*).
Hardman, J. E., Montreal, Que. (See advt. in *Canadian Mining Journal*).
Hassan, A. A., Cobalt, Ont. (See advt. in *Canadian Mining Journal*).
Mein, W. W., New York City, N. Y., U.S.A. (See advt. in *Canadian Mining Journal*).
Smith, Sydney, Haileybury, Ont. (See advt. in *Canadian Mining Journal*).
Spearman, Chas., Haileybury, Ont. (See advt. in *Canadian Mining Journal*).
Summerhayes, M. W., Timmins, Ont. (See advt. in *Canadian Mining Journal*).
Tyrrell, J. B., Toronto, Ont. (See advt. in *Canadian Mining Journal*).

Pulp and Paper Engineers:

Advance Engineering Co., Traders Bank Bldg., Toronto. (*See advt. in Pulp and Paper Magazine*).
Albertson, Dan. J., Calamazoo, Mich. (See advt. in *Pulp & Paper Magazine*).
Barker, E. R., Boston, Mass. (See advt. in *Pulp & Paper Magazine*.)
Eaton & Brownell, Watertown, N. J., U.S.A. (See advt. in *Pulp & Paper Magazine*).
Hardy, Geo. F., New York City, N. Y., U.S.A. (See advt. in *Pulp & Paper Magazine*).
Jenssen, G. D. & Co., Boston, Mass., U.S.A. (See advt. in *Pulp & Paper Magazine*).
Prather, H. B., Cleveland, Ohio, U.S.A. (See advt. in *Pulp & Paper Magazine*).
Schlick, Leo., Toronto, Ont. (See advt. in *Pulp & Paper Magazine*).
Wallace, Jos. H. & Co., Montreal, Que.; New York City, N.Y., U.S.A.; and London, E.C. (See advt. in *Pulp & Paper Magazine*).

CHEMISTS, ASSAYERS AND ANALYSTS

Campbell & Deyell, Cobalt & South Porcupine, Ont. (See advt. in *Canadian Mining Journal*).
Canadian Laboratories, Toronto, Ont. (See advt. in *Canadian Mining Journal*).
Crosly, T. Lindsay, Montreal, Que. (See advt. in *Canadian Mining Journal*).
DeCew, J. A., Montreal, Que. (See advt. in *Pulp & Paper Magazine*).
Heys, Thos. & Son, Toronto, Ont. (See advt. in *Canadian Mining Journal*).
Hersey, Milton Co., Limited, Montreal, Que. (See advt. in *Pulp & Paper Magazine* and *Canadian Mining Journal*).
Little, Arthur B., Boston, Mass., U.S.A. (See advt. in *Pulp & Paper Magazine*).
Ledoux & Co., New York City, N.Y., U.S.A. (See advt. in *Canadian Mining Journal*).

LEADING CANADIAN TECHNICAL AND SPECIALIZED PERIODICALS

Agricultural.

Beekeeper, Peterborough, Ont.
B. C. Fruit & Farm, Victoria, B.C.
Canadian Countryman, Toronto, Ont.
Canadian Farm, Toronto, Ont.
Canadian Horticulturist, Peterborough, Ont.
Canadian Poultry News, Grimsby, Ont.
Canadian Poultry Review, Toronto, Ont.
Canadian Thresherman, Winnipeg, Man.
Farmers' Advocate, London, Ont., and Winnipeg, Man.
Farm & Dairy, Peterborough, Ont.
Farmers' Magazine, Toronto, Ont.
Farm & Ranch Review, Calgary, Alta.
Grain Grower's Guide, Winnipeg, Man.
Journal d'Agriculture (French), Montreal, Que.
Maritime Poultryman, Sussex, N.B.
Poultry Advocate, Toronto, Ont.
Poultry, Pigeons & Pet Stock Journal, Victoria, B.C.
Saskatchewan Farmer, Moose Jaw, Sask.
Successful Poultryman, Central Park, B.C.

Commerce, Trade, Finance and Industry.

The Journal of Commerce, Montreal, Que.
Le Prix Courant (French), Montreal, Que.

Fisheries.

Canadian Fisherman, Montreal, Que.

Finance.

B. C. Financial Times, Vancouver, B.C.
Canadian Finance, Winnipeg, Man.
Financial Times, Montreal, Que.
Financial Post, Toronto, Ont.
Monetary Times, Toronto, Ont.

Mining.

Canadian Mining Journal, Toronto, Ont.

Municipal Interests.

Canadian Municipal Journal, Montreal, Que.

Pulp and Paper Manufacturing.

Pulp & Paper Magazine of Canada, Montreal, Que.

Textile Manufacturing.

Canadian Textile Journal, Montreal, Que.

Miscellaneous.

Baker and Confectioner, Toronto, Ont.
Bookseller and Stationery, Toronto, Ont.
Busy East of Canada, Moncton, N.B.
Canadian Clay Worker, Toronto, Ont.
Canadian Forestry Journal, Ottawa, Ont.
Canadian Grocer, Toronto, Ont.
Canadian Lumberman, Toronto, Ont.
Canadian Manufacturer, Toronto, Ont.
Canadian Railway and Marine World, Toronto, Ont.
Canadian West India Magazine, Montreal, Que.
Canadian Woodworker, Toronto, Ont.
Commercial Review, Calgary, Alta.
Contract Record, Toronto, Ont.
Dry Goods Review, Toronto, Ont.
Electrical News, Toronto, Ont.
Hardware & Metal, Toronto, Ont.
Industrial Advocate, Halifax, N.S.
Industrial Canada, Toronto, Ont.
Maritime Merchant, Halifax, N.S.
Plumber & Steamfitter, Toronto, Ont.
Shoe and Leather Journal, Toronto, Ont.
Trade Bulletin, Montreal, Que.

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